

M A R C H 2 0 1 1

REPORT TO THE CONGRESS

Medicare Payment Policy

MEDPAC Medicare
Payment Advisory
Commission

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The Medicare Payment Advisory Commission (MedPAC) is an independent congressional agency established by the Balanced Budget Act of 1997 (P.L. 105–33) to advise the U.S. Congress on issues affecting the Medicare program. In addition to advising the Congress on payments to health plans participating in the Medicare Advantage program and providers in Medicare’s traditional fee-for-service program, MedPAC is also tasked with analyzing access to care, quality of care, and other issues affecting Medicare.

The Commission’s 17 members bring diverse expertise in the financing and delivery of health care services. Commissioners are appointed to three-year terms (subject to renewal) by the Comptroller General and serve part time. Appointments are staggered; the terms of five or six Commissioners expire each year. The Commission is supported by an executive director and a staff of analysts, who typically have backgrounds in economics, health policy, and public health.

MedPAC meets publicly to discuss policy issues and formulate its recommendations to the Congress. In the course of these meetings, Commissioners consider the results of staff research, presentations by policy experts, and comments from interested parties. (Meeting transcripts are available at www.medpac.gov.) Commission members and staff also seek input on Medicare issues through frequent meetings with individuals interested in the program, including staff from congressional committees and the Centers for Medicare & Medicaid Services (CMS), health care researchers, health care providers, and beneficiary advocates.

Two reports—issued in March and June each year—are the primary outlets for Commission recommendations. In addition to annual reports and occasional reports on subjects requested by the Congress, MedPAC advises the Congress through other avenues, including comments on reports and proposed regulations issued by the Secretary of the Department of Health and Human Services, testimony, and briefings for congressional staff.

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Glenn M. Hackbarth, J.D., Chairman
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March 15, 2011

The Honorable Joseph R. Biden
President of the Senate
U.S. Capitol
Washington, DC 20510

The Honorable John A. Boehner
Speaker of the House
U.S. House of Representatives
U.S. Capitol
Room H-232
Washington, DC 20515

Dear Mr. Vice President and Mr. Speaker:

I am pleased to submit the Medicare Payment Advisory Commission's March 2011 *Report to the Congress: Medicare Payment Policy*. This report fulfills the Commission's legislative mandate to evaluate Medicare payment issues and to make recommendations to the Congress.

The report contains 13 chapters:

- a chapter that provides context for those that follow by documenting the rise in Medicare and total health care spending.
- a chapter that describes the Commission's analytical framework for assessing payment adequacy.
- nine chapters that describe the Commission's recommendations on rate updates and related issues, such as distribution of payments and program integrity, for nine payment systems used by traditional Medicare.
- a chapter with updated statistics on enrollment, plan offerings, and payments in Medicare Advantage plans.
- a chapter with updated statistics on enrollment and plan offerings for plans that provide prescription drug coverage.

I hope you find this report useful as the Congress continues to grapple with the difficult task of controlling the growth of Medicare spending while preserving beneficiaries' access to high-quality care and providing sufficient payment for efficient providers.

Sincerely,

A handwritten signature in black ink, appearing to read "Glenn M. Hackbarth".

Glenn M. Hackbarth, J.D.
Chairman

Enclosure

Acknowledgments

This report was prepared with the assistance of many people. Their support was key as the Commission considered policy issues and worked toward consensus on its recommendations.

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Table of contents

Acknowledgments	v
Executive summary	xi
Chapters	
1 Context for Medicare payment policy	3
Introduction	5
National health care spending and spending growth	5
Reasons for growth in health care spending	10
Medicare’s financing challenge	13
Medicare after PPACA	18
2 Assessing payment adequacy and updating payments in fee-for-service Medicare	25
Are Medicare payments adequate in 2011?	27
What cost changes are expected in 2012?	31
How should Medicare payments change in 2012?	31
Payment adequacy in context	33
3 Hospital inpatient and outpatient services	37
Background	41
Are Medicare payments adequate in 2011?	42
How should Medicare payments change in 2012?	60
4 Physician and other health professional services	69
Background	73
Are Medicare payments adequate in 2011?	75
How should Medicare payments change in 2012?	92
Future work	92
5 Ambulatory surgical centers	101
Background	103
Are Medicare payments adequate in 2011?	104
How should Medicare payments change in 2012?	112
6 Outpatient dialysis services	119
Background	121
Are Medicare payments adequate in 2011?	129
How should Medicare payments change in 2012?	140
7 Skilled nursing facility services	147
Background	149
Are Medicare payments adequate in 2011?	151
How should Medicare payments change in 2012?	163
Medicaid trends	164
8 Home health services	175
Background	177
Are Medicare payments adequate in 2011?	180
How should Medicare payments change in 2012?	194

9	Inpatient rehabilitation facility services	203
	Background	205
	Are Medicare payments adequate in 2011?	208
	How should Medicare payments change in 2012?	224
10	Long-term care hospital services	231
	Background	235
	Are Medicare payments adequate in 2011?	237
	How should Medicare payments change in 2012?	246
	Developing quality measures for LTCHs	247
11	Hospice	259
	Background	261
	Are Medicare payments adequate in 2011?	265
	How should Medicare payments change in 2012?	278
12	The Medicare Advantage program: Status report	285
	Background	289
	Trends in enrollment, plan availability, and payment.	290
	Trends in MA quality	294
	MA payment changes in PPACA	307
13	Status report on Part D	317
	Background	319
	Part D enrollees' access to prescription drug benefits in 2010	320
	Costs of Part D	328
	Measuring plan performance in Part D.	335
	Policy issues	336
 Appendix		
A	Commissioners' voting on recommendations	343
	Acronyms	349
 More about MedPAC		
	Commission members	355
	Commissioners' biographies	357
	Commission staff	361

Executive summary

Executive summary

The Medicare Payment Advisory Commission reports to the Congress each March on the Medicare fee-for-service (FFS) payment systems, the Medicare Advantage (MA) program, and the Medicare prescription drug program (Part D). In this year's report, we:

- Consider the context of the Medicare program in terms of its spending and the federal budget and national gross domestic product (GDP).
- Evaluate payment adequacy and make recommendations concerning Medicare FFS payment policy in 2012 for: hospital inpatient, hospital outpatient, physician and other health professional, ambulatory surgical center, outpatient dialysis, skilled nursing, home health, inpatient rehabilitation, long-term care hospital, and hospice.
- Review the status of the MA plans beneficiaries can join in lieu of traditional FFS Medicare.
- Review the status of the plans that provide prescription drug coverage.

The goal of Medicare payment policy is to get good value for the program's expenditures, which means maintaining beneficiaries' access to high-quality services while encouraging efficient use of resources. Anything less does not serve the interests of the taxpayers and beneficiaries who finance Medicare through their taxes and premiums. Although this report addresses many topics to increase value, its principal focus is the Commission's recommendations for the annual rate updates under Medicare's various FFS payment systems.

We recognize that managing updates and relative payment rates alone will not solve the fundamental problem with current Medicare FFS payment systems—that providers are paid more when they deliver more services without regard to the quality or value of those additional services. To address this problem directly two approaches must be pursued. First, payment reforms, such as penalties for excessive readmission rates and linking some percentage of payment to quality outcomes, need to be implemented. Second, delivery system reforms, such as medical homes, bundling, and accountable care organizations, need to be tested and successful models adopted on a broad scale.

In the interim, it is imperative that the current FFS payment systems be managed carefully. Medicare is likely

to continue using its current payment systems for some years into the future. This alone makes Medicare payment rates—their overall level, the relative payment rates of different services in a sector, and the relative payment rates of the same services across sectors—an important topic. In addition, if payment rates were constrained, that could create pressure on providers to control their own costs and to be more receptive to new payment methods and delivery system reforms.

Each chapter presents the payment adequacy information that informs our FFS update recommendations. We present each recommendation; its rationale; and its implications for beneficiaries, providers, and program spending. The spending implications are presented as ranges over one- and five-year periods and, unlike official budget estimates, they do not take into account the complete package of policy recommendations or the interactions among them. In Appendix A, we list all recommendations and the Commissioners' votes.

Context for Medicare payment policy

Between 2009 and 2035, according to projections under current law, Medicare's share of total economic output (GDP) is projected to rise from 3.5 percent to 5.5 percent. As we discuss in Chapter 1, Medicare's cost growth does not occur in a vacuum; it is linked to other forces that drive growth in health care spending at rates well in excess of GDP. Health care spending has risen faster than GDP for over four decades. The reasons for this growth in health care spending are well established: advances in technology, which include changes in the practice of medicine to help providers diagnose or treat illness and the diffusion of treatments to a wider population; changes in insurance; and changes in household income and demographics.

Medicare's spending growth has resulted in Medicare consuming a significant share, 18 percent, of all income tax revenue (in addition to Medicare's dedicated payroll tax revenues, premiums, and cost sharing). Further complicating Medicare's long-term outlook is a large non-Medicare federal fiscal burden. Total debt held by the public is expected to near 70 percent of GDP within the next decade, a level not seen since World War II.

In their 2010 report, the Medicare Board of Trustees project that growth in Medicare spending will be slower for the coming decade than in the previous decade. They

estimate that total Medicare spending will grow by 6.0 percent annually from 2010 through 2019, compared with 9.7 percent from 2000 to 2009. Part of the reason for this slowdown are changes made by the Patient Protection and Affordable Care Act (PPACA) and the Health Care and Education Reconciliation Act of 2010. The Centers for Medicare & Medicaid Services (CMS) Office of the Actuary estimates that the Medicare provisions in PPACA will reduce spending by \$575 billion over 10 years, resulting in Medicare spending that is 9 percent lower by 2019, compared with prior law.

Assessing payment adequacy and updating payments in fee-for-service Medicare

The Commission makes payment update recommendations annually for FFS Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a prospective payment system is changed. In Chapter 2, we lay out our general approach for determining an update. We first assess the adequacy of Medicare payments for providers in the current year (2011) by considering beneficiaries' access to care, the supply of providers, service volume, the quality of care, providers' access to capital, and Medicare payments and providers' costs. Next, we assess how those providers' costs are likely to change in the year the update will take effect (the policy year—2012). As part of the process, we examine payment adequacy for the “efficient” provider to the extent possible. Finally, we make a judgment on what, if any, update is needed.

This year, we make update recommendations in 10 FFS sectors: hospital inpatient, hospital outpatient, physician and other health professional, ambulatory surgical center, outpatient dialysis, skilled nursing, home health, inpatient rehabilitation, long-term care hospital, and hospice. These update recommendations can significantly change the level of revenues providers receive from Medicare and help create pressure on providers to contain their cost through efficiencies and to participate in broader reforms to address the fundamental problem in FFS payment systems—that providers are paid more when they deliver more services without regard to the quality or value of those additional services.

We also consider changes that:

- Redistribute payments within a payment system to improve equity among providers or to correct any biases that may make patients with certain conditions financially undesirable or make particular procedures

unusually profitable. For example, we recommend rebalancing skilled nursing facility (SNF) payments between therapy and nontherapy services.

- Improve program integrity—for example, we recommend reviewing aberrant patterns of utilization in home health agencies and hospices.
- Link payment to quality through pay-for-performance initiatives.

Each year the Commission looks at all the indicators of payment adequacy using the most recent data available to make sure its recommendations accurately reflect current conditions.

Hospital inpatient and outpatient services

In 2009, the 3,500 hospitals paid under the hospital inpatient prospective payment system received \$148 billion for roughly 10 million Medicare inpatient admissions and 147 million outpatient services. From 2008 to 2009, Medicare payments per FFS beneficiary for hospital inpatient and outpatient services grew by 6 percent.

In Chapter 3, we present our assessment of payment adequacy for these services. We find:

- Access measures are positive. The supply of hospitals, range of services offered, and the number of hospital employees all continue to grow. The volume of hospital outpatient services per Medicare FFS beneficiary grew by 4 percent per year from 2005 to 2009 as inpatient admissions per beneficiary declined 1 percent per year. Hospital-based outpatient physician office visits grew by 9 percent from 2008 to 2009, representing a quarter of all outpatient volume growth.
- Quality continues to improve on most measures. Hospitals reduced in-hospital and 30-day mortality rates across 5 prevalent clinical conditions. Patient experience measures have shown a slight improvement in recent years. However, patient safety indicators and readmission rates have not improved significantly.
- Access to capital has been volatile over the past three years but appears adequate at this time.
- In 2009, Medicare margins improved. Medicare payment growth outpaced cost growth for two reasons. First, Medicare inpatient payments per discharge grew by 5.3 percent, which was the highest growth in payments in over a decade. The high increase in the average payment rate reflects the update in payment

rates and the effect of hospitals' documentation and coding improvements. Second, costs per discharge grew by 3.0 percent, which was the lowest cost growth since 2000. The lower cost growth reflects the hospital industry's response to the financial crisis that occurred in fall 2008, which increased pressure on hospitals to constrain their cost growth in 2009.

- In 2009, the Medicare margin for the median efficient hospital was 3.0 percent. (We define efficient hospitals as those that consistently perform relatively well on cost, mortality, and readmission measures.) While most of these relatively efficient hospitals generate profits on Medicare patients, about one-third do not.

The Commission recommends an update of 1 percent for both the inpatient and outpatient prospective payment systems for 2012. In its update recommendation, the Commission has struck a balance among several competing factors. On the one hand, average total Medicare margins are negative. On the other hand, our other payment adequacy indicators are positive. Furthermore, the negative Medicare margins reflect in part the lack of private financial pressure for cost containment, and the set of hospitals identified as efficient have a positive median Medicare margin. Based on these circumstances the Commission contemplated an update of 2.5 percent.

However, for inpatient services, changes in documentation and coding following the implementation of Medicare severity–diagnosis related groups in 2008 have created overpayments to hospitals. Current law does not allow full recovery of past overpayments and no action has been taken to stop the ongoing overpayments. The Commission maintains that all overpayments should be recovered and recommends that the Congress require the Secretary of Health and Human Services to make adjustments to payment rates in future years to do so. Stopping the ongoing overpayments is a crucial first step. Therefore, the Commission would reduce the ongoing overpayment by 1.5 percentage points in 2012—that is, the difference between its contemplated update of 2.5 percent and its recommended update of 1 percent. In addition to this 1.5 percent adjustment in 2012, a further 2.4 percent adjustment will be needed in future years to fully prevent further overpayments.

For outpatient hospital services, the Commission is concerned that significant payment disparities among Medicare's ambulatory care settings (hospital outpatient departments, ambulatory surgical centers (ASCs), and physicians' offices) for similar services are fostering

undesirable financial incentives. Physician practices and ASCs are being reorganized as hospital outpatient entities in part to receive higher reimbursements. Medicare should seek to pay similar amounts for similar services, taking into account differences in quality of care and in the relative risks of the patient populations. The Commission is concerned by the incentive to reorganize for higher reimbursement and will examine this issue. However, in the interim, the modest update of 1 percent is warranted in the hospital outpatient setting to limit the growing payment rate disparities among ambulatory care settings.

Physician and other health professional services

Physicians and other health professionals perform a broad range of services, including office visits, surgical procedures, and a variety of diagnostic and therapeutic services furnished in all health care settings. In 2009, FFS Medicare spent about \$64 billion on physician and other health professional services.

In Chapter 4, we find that most indicators of Medicare's payment adequacy for fee-schedule services are positive and stable, suggesting that, at current payment levels, most beneficiaries can obtain care on a timely basis.

- Overall, beneficiary access to physician services is good or better than that reported by privately insured patients age 50 to 64. For example, in 2010, 75 percent of beneficiaries reported that they had no problem scheduling timely routine-care physician appointments.
- Multiple surveys show that most physicians are accepting Medicare patients. For example, the 2008 National Ambulatory Medical Care Survey found that 90 percent of physicians with at least 10 percent of their practice revenue coming from Medicare accepted at least some new Medicare patients.
- Service volume per beneficiary continued to grow in 2009. Overall volume (including both service units and intensity) grew 3.3 percent per beneficiary.
- Most claims-based indicators for ambulatory quality that we examined for the elderly improved slightly or were stable from 2007 to 2009.
- Medicare's payment for physician fee-schedule services in 2009 averaged 80 percent of private insurer payments for preferred provider organizations, a figure unchanged from the preceding year.

In light of these positive indicators and the modest expected growth in physicians' and other health professionals' costs, the Commission recommends an update of 1 percent for physician fee-schedule services in 2012.

We also consider two key issues. The first is beneficiary access to primary care. While our analysis finds that access to physician and other health professional services is good nationally, a small share of the Medicare population continues to report problems finding a new primary care physician—an essential component to a well-functioning delivery system. In addition, a recent study found that in 2007, hourly compensation rates for some specialties were more than double the rate for primary care. The Commission has recommended enhancements to primary care, such as increasing Medicare payments for primary care services provided by primary care practitioners. The Congress's adoption of this policy marks an important step toward ensuring beneficiaries' access to primary care. The Commission will explore other levers to promote primary care including other payment approaches and maximizing the use of health professionals such as advanced nurse practitioners.

The second issue centers on the sustainable growth rate (SGR) system, the budgetary mechanism designed to address growth in Medicare spending for physician and other health professional services. In previous reports, the Commission has discussed the flaws of the SGR system, while recognizing that having an expenditure target can provide some restraint on updates.

A main flaw of the SGR is it neither rewards individual providers who restrain unnecessary volume growth nor penalizes those who contribute most to inappropriate volume increases. Indeed, volume growth has been a major factor in the prescribed SGR payment cuts—cuts expected to be at least 25 percent in 2012.

There is general consensus that fee cuts of that magnitude would be detrimental to beneficiary access to care, and legislative overrides of the SGR have averted payment cuts in recent years. However, these overrides are merely temporary, leading to mounting frustration among physicians, other health professionals, and their patients and to a desire for a longer term remedy. However, the high budgetary cost of eliminating some or all of the scheduled fee cuts in the longer term has prevented such proposals from becoming law. The Commission plans to continue to work on SGR payment policies and consider

various approaches for updating the Medicare physician fee schedule.

Ambulatory surgical centers

ASCs furnish outpatient surgical services to patients not requiring hospitalization and for whom an overnight stay is not expected after surgery. In 2009, Medicare combined program and beneficiary spending on ASC services was \$3.2 billion (\$2.6 billion in program spending), an increase of 5.1 percent per FFS beneficiary over 2008.

In Chapter 5 we find that most of the available indicators of payment adequacy for ASC services are positive:

- Our analysis of facility supply and volume of services indicates that beneficiaries' access to ASC care has generally been adequate. There were 5,260 Medicare-certified ASCs, an increase of 2.1 percent (109 ASCs) over 2008. In 2009, volume increased by 3.4 percent.
- CMS does not require ASCs to submit data on the quality of care they provide. Consequently, we do not have sufficient data to assess ASCs' quality of care.
- ASCs' access to capital appears to be adequate as the number of ASCs has continued to increase.
- Medicare payments per FFS beneficiary increased by 5.1 percent in 2009. ASCs do not submit data on the cost of care they provide to the Medicare program. Therefore, we cannot calculate a margin as we do in other sectors to assist in assessing payment adequacy.

The Commission recommends an increase of 0.5 percent for ASC payments in 2012, concurrent with a requirement that ASCs submit cost and quality data.

Outpatient dialysis services

Outpatient dialysis services are used to treat individuals with end-stage renal disease (ESRD). In 2009, about 340,000 dialysis beneficiaries were covered under FFS Medicare, and Medicare expenditures for outpatient dialysis services, including separately billable drugs administered during dialysis, were \$9.2 billion, an increase of 7 percent from 2008 spending levels.

The payment adequacy indicators for outpatient dialysis services we discuss in Chapter 6 are generally positive:

- Dialysis facilities appear to have the capacity to meet demand. Growth in the number of dialysis treatment

stations has generally kept pace with growth in the number of dialysis patients.

- Between 2008 and 2009, the number of FFS dialysis beneficiaries and dialysis treatments grew by 4 percent. Use of dialysis drugs also increased between 2008 and 2009.
- Dialysis quality has improved over time for some measures, such as use of the recommended type of vascular access—the site on the patient’s body where blood is removed and returned during dialysis. Other measures suggest that improvements in quality are still needed.
- Access to capital for dialysis providers continues to be adequate. The number of facilities, particularly for-profit facilities, continues to increase.
- In 2009, the Medicare margin for composite rate services and dialysis drugs for freestanding facilities was 3.1 percent.

The Commission recommends an update of 1 percent for outpatient dialysis services in 2012. Consistent with the Commission’s long-standing recommendation, a new dialysis prospective payment method began in 2011 that includes dialysis drugs in the payment bundle and requires that CMS implement a quality incentive program beginning in 2012.

Skilled nursing facility services

SNFs furnish short-term skilled nursing and rehabilitation services to beneficiaries after a stay in an acute care hospital. Most SNFs are part of nursing homes that furnish long-term care, which Medicare does not cover. In fiscal year 2010, Medicare spent \$26.4 billion on SNF care.

Most indicators of payment adequacy for SNFs are positive, as we discuss in Chapter 7:

- Access to SNF services remains stable for most beneficiaries, though minorities use SNF services less than other beneficiaries. The number of SNFs has increased gradually since 2001. Available SNF bed days increased 4 percent between 2008 and 2009. However, since 2004, the share of SNFs admitting medically complex patients decreased. As a result, some beneficiaries may have to wait to be placed in a SNF that will take them.

- Days and admissions on a per FFS beneficiary basis decreased slightly between 2008 and 2009. This decline reflects fewer hospital admissions (a prerequisite for Medicare coverage). However, despite these reductions, use rates were higher in 2009 than in 2006.
- SNF quality of care in 2008 was basically unchanged from the prior year.
- Because most SNFs are part of a larger nursing home, we examine nursing homes’ access to capital. Access to capital has improved since 2009 but some investors are wary of the impact of states’ budget difficulties. Any uncertainties in lending do not center on the adequacy of Medicare payments; from all accounts, Medicare remains a sought-after payer.
- Increases in payments between 2008 and 2009 outpaced increases in provider costs, reflecting the continued concentration of days in the highest payment case-mix groups. In 2009, the average Medicare margin for freestanding SNFs was 18.1 percent.

Financial performance continued to differ substantially across the industry—a function of distortions in the prospective payment system (PPS) and cost differences of providers. Compared to SNFs with relatively low margins, SNFs with the highest margins had higher shares of days in intensive rehabilitation case-mix groups and lower shares of days in the medically complex groups. We also examined relatively efficient SNFs and found that it is possible to have costs well below average, above-average quality, and more than adequate Medicare margins.

In light of these findings, the Commission recommends no update for SNFs in 2012. In addition the Commission reiterates its recommendation to:

- revise the SNF PPS to base payments on patient care needs, not on therapy provision,
- establish a quality incentive payment policy for SNFs,
- improve quality measurement for SNFs by adding the risk-adjusted rates of potentially avoidable rehospitalizations and community discharge, and
- report more accurate diagnostic and service-use information.

PPACA requires that we report on Medicaid utilization, spending, and non-Medicare margins for SNFs beginning in 2012. Medicaid finances mostly long-term care services

provided in nursing homes but also covers the copayments for dual-eligible beneficiaries who stay 21 or more days in a SNF. Our initial investigation finds the number of Medicaid-certified facilities decreased between 2000 and 2009 but Medicaid-covered days and spending increased during this period. Non-Medicare margins (for all lines of business) were negative between 2000 and 2009, but total margins (for all payers and all lines of business) were positive.

Home health services

Home health agencies provide services to beneficiaries who are homebound and need skilled care (nursing or therapy). In 2009, about 3.3 million Medicare beneficiaries received home health services from about 11,000 home health agencies. Medicare spent \$19 billion on home health services in 2009.

As we describe in Chapter 8, the indicators of payment adequacy for home health are generally positive:

- Access to home health care is generally adequate. Ninety-nine percent of beneficiaries live in a ZIP code where a Medicare home health agency operates and 98 percent live in a ZIP code with two or more agencies.
 - The number of agencies continues to increase, with over 650 new agencies in 2010. The total number of agencies exceeds 11,400, surpassing the peak of 10,917 agencies in 1997. Most new agencies have been for profit and concentrated in a few states.
 - The volume of services continues to rise. The average number of episodes per user increased by 25 percent from 2002 to 2009 and the share of FFS beneficiaries using home health care increased as well.
 - The Home Health Compare quality measures for 2010 are similar to those for previous years, showing improvement in the functional measures and mostly unchanged rates of adverse events. However, the Commission believes that supplemental measures of quality that focus on specific conditions are needed to assess home health quality and has a project under way to develop new measures.
 - The major publicly traded for-profit home health companies have sufficient access to capital markets for their credit needs. The significant number of new agencies in 2010 suggests that smaller agencies also have access to capital necessary for start-up.
- In prior years, payments have consistently and substantially exceeded costs in the home health PPS. Medicare margins for freestanding providers in 2009 were 17.7 percent. Two factors have contributed to payments exceeding costs: Fewer services are delivered than is assumed in Medicare's rates, and growth in cost per episode has been lower than what is assumed in the market basket.

In consideration of these findings, the Commission recommends that the Congress eliminate the market basket update for 2012 and direct the Secretary to implement a two-year rebasing of home health rates beginning in 2013. In addition, the Commission finds that the home health benefit has significant vulnerabilities that need to be addressed urgently and recommends policies to strengthen program integrity, improve payment accuracy, and establish beneficiary incentives.

- Recent trends in several parts of the nation suggest that fraud has become a significant concern in the home health benefit. The Commission recommends that the Secretary and the Office of Inspector General review areas with aberrant home health utilization and that the Secretary implement suspensions of enrollment and payment in areas with widespread fraud.
- The Commission finds the current home health payment system is flawed and creates incentives for patient selection. Analysis by the Commission and the Urban Institute suggests that the current case-mix system may, in effect, overvalue therapy services and undervalue nontherapy services. The Commission recommends that the Secretary implement a revised payment system that addresses these flaws.
- The lack of cost sharing in Medicare for home health services is unusual, as most services in Medicare's traditional FFS program include some form of beneficiary liability. The Commission recommends adding a cost-sharing requirement, which would make the beneficiary more apt to consider the value of the benefit and share in decision making about when to use home health services.

Inpatient rehabilitation facility services

Inpatient rehabilitation facilities (IRFs) provide intensive rehabilitation services to patients after an injury, illness, or surgery. In 2009, almost 360,000 Medicare FFS

beneficiaries received care in IRFs. Medicare FFS expenditures for IRF services were about \$6 billion in 2009.

Our indicators of Medicare payment adequacy for IRFs, discussed in Chapter 9, are generally positive:

- Our measures of access to care suggest that beneficiaries have sufficient access to IRF services. The supply of IRFs, occupancy rates, and volume were stable in 2009. In addition, the decline in the number of rehabilitation beds since 2005 tapered off in 2009.
- From 2004 to 2010, IRF patients' functional improvement between admission and discharge increased, suggesting improvements in quality. However, changes over time in patient mix make it difficult to draw definitive conclusions about quality trends.
- Hospital-based units, through their parent institutions, have adequate access to capital. The largest chain of freestanding facilities also appears to have adequate access to capital. We are not able to determine the ability of independent freestanding facilities to raise capital.
- The IRF aggregate Medicare margin for 2009 was 8.4 percent.

The Commission recommends a zero update to payments for IRFs in 2012. We conclude that IRFs will be able to absorb cost increases and continue to provide care to clinically appropriate Medicare cases under this update.

Long-term care hospital services

Long-term care hospitals (LTCHs) furnish care to patients with clinically complex problems—such as multiple acute or chronic conditions—who need hospital-level care for relatively extended periods. Medicare is the predominant payer for LTCH services, accounting for about two-thirds of LTCH discharges. In 2009, Medicare spent \$4.9 billion on care furnished by roughly 400 LTCHs nationwide. About 116,000 beneficiaries had almost 131,500 LTCH stays.

Our analysis of payment adequacy indicators in Chapter 10 finds:

- The number of LTCHs increased 6.6 percent between 2008 and 2009, despite a limited moratorium on new LTCHs and new beds in existing LTCHs from July

2007 until December 28, 2012. New LTCHs were able to enter the Medicare program because they met specific exceptions to the moratorium.

- Beneficiaries' use of services suggests that access has not been a problem. Controlling for the number of FFS beneficiaries, we found that the number of LTCH cases rose 0.9 percent between 2008 and 2009, suggesting that access to care was maintained during this period.
- Unlike most other health care facilities, LTCHs do not submit quality data to CMS. Our claims-based analysis found stable or declining rates of readmission, death in the LTCH, and death within 30 days of discharge for most of the top 20 diagnoses in 2009.
- The moratorium on new beds and facilities reduces opportunities in the near future for expansion and need for capital, although the largest LTCH chains continued with construction of new LTCHs that were already in the pipeline and thus exempt from the moratorium. In addition, these chains, which together own slightly more than half of all LTCHs, continued in 2010 to acquire other LTCHs, as well as other post-acute care providers.
- Payments per case increased 6.4 percent between 2008 and 2009. Cost per case rose less than 2 percent. The 2009 Medicare margin for LTCHs was 5.7 percent.

The Commission recommends a zero update for LTCHs in 2012.

PPACA mandates that CMS implement a pay-for-reporting program for LTCHs by 2014. The quality measures LTCHs report should include process, patient safety, and outcome measures. Ideally, those measures should be comparable to measures used in other post-acute settings. Ultimately, policymakers should be able to compare patient safety and outcomes across the post-acute care spectrum to measure value; that is, whether beneficiaries are receiving high-quality care in the least costly setting consistent with their clinical conditions.

Pay for reporting is a first step. The next step should be pay for performance. Linking a portion of LTCH payment to quality will create stronger incentives to improve care delivery. We are exploring measures for LTCHs that will contribute to a strong pay-for-performance program.

Hospice

The Medicare hospice benefit covers palliative and support services for beneficiaries with a life expectancy of six months or less who choose to enroll in the benefit. In 2009, nearly 1.1 million Medicare beneficiaries received hospice services from nearly 3,500 providers, and Medicare expenditures totaled \$12 billion.

The indicators of payment adequacy for hospices are generally positive, as we discuss in Chapter 11:

- Hospice use among Medicare decedents has grown substantially in recent years, suggesting greater awareness of and access to hospice services. In 2009, hospice use increased across almost all demographic and beneficiary characteristics examined.
- The supply of hospices increased 50 percent from 2000 to 2009—growing on average 5 percent per year from 2000 to 2008 and 3 percent from 2008 to 2009. For-profit providers accounted almost entirely for the increase in the number of hospices.
- Use of Medicare hospice services continues to increase, with growth in both the number of hospice users and average length of stay. In 2009, 42 percent of Medicare decedents used hospice, up from 40 percent in 2008 and 23 percent in 2000. Between 2000 and 2009, average stay grew from 54 days to 86 days, reflecting longer stays among patients with the longest stays.
- At this time, we do not have sufficient data to assess the quality of hospice care provided to Medicare beneficiaries, as information on quality of care is very limited. PPACA mandates that CMS publish quality measures in 2012. Beginning in fiscal year 2014, hospices that do not report quality data will receive a 2 percentage point reduction in their annual payment update.
- Hospices are not as capital intensive as some other provider types because they do not require extensive physical infrastructure. The continued influx of new providers suggests access to capital is adequate.
- The aggregate Medicare margin was 5.1 percent in 2008. The margin estimate excludes nonreimbursable costs associated with bereavement services and volunteers (at most 1.5 percent and 0.3 percent of total costs, respectively).

The Commission recommends an update of 1 percent for hospices in 2012. The chapter also reiterates previous Commission recommendations concerning:

- improving the accuracy of the PPS by increasing payments for days at the beginning and end of the episode relative to days in the middle of the episode,
- increasing program integrity by having the Office of Inspector General investigate the prevalence of financial relationships between hospices and long-term care facilities, differences in patterns of nursing home referrals to hospice, enrollment practices at hospices with aberrant utilization patterns, and hospice marketing and admissions practices and their relation to length of stay.

Status report on the Medicare Advantage program

In Chapter 12, we provide a status report on the MA program. The MA program allows Medicare beneficiaries to receive benefits from private plans rather than from the traditional FFS Medicare program. The Commission supports private plans in the Medicare program; beneficiaries should be able to choose between the traditional FFS Medicare program and the alternative delivery systems that private plans can provide. Private plans have greater potential to innovate and to use care management techniques and, if paid appropriately, would have more incentive to do so.

In 2010, MA enrollment increased to 11.4 million beneficiaries (24 percent of all Medicare beneficiaries). Enrollment in HMOs, the dominant form of MA plan, grew by 7 percent. Preferred provider organizations (PPOs) exhibited rapid enrollment growth, with local PPO enrollment growing about 40 percent and enrollment in regional PPOs more than doubling between 2009 and 2010. Enrollment in private FFS (PFFS) plans declined from about 2.4 million to about 1.6 million enrollees as plans reduced their PFFS service areas in anticipation of new network requirements for PFFS beginning in 2011.

In 2011, virtually all Medicare beneficiaries have access to an MA plan and 99 percent have access to a network-based coordinated care plan (CCP). Ninety percent of beneficiaries have access to an MA plan that includes Part D drug coverage and has no premium (beyond the Medicare Part B premium). Beneficiaries can choose from an average of 12 plans, including 8 CCPs.

We estimate that, on average, 2011 MA benchmarks, bids, and payments will be 113 percent, 100 percent, and 110 percent of FFS spending, respectively—similar to the ratios in 2010. That is, on average, Medicare will spend 10 percent more for beneficiaries enrolled in MA plans than if those beneficiaries were in FFS Medicare. MA plan benchmarks were frozen in 2011 and further PPACA changes to the benchmarks will be fully phased in by 2017. This new method of setting MA payment benchmarks may need some technical adjustments to correct intercounty benchmark inequities.

For 2010, quality measures have been stable with some improvement in clinical process measures over the preceding year. At an aggregate level, vaccination rates and measures of patient experience are comparable to the rates in FFS Medicare, although the comparison is limited by differences in population demographics and geographic location. Measures of patient outcomes in MA are stable and not significantly changed from earlier years. There continues to be wide variation in quality indicators across MA plans.

PPACA introduced a pay-for-performance program that, beginning in 2012, would provide bonus payments to higher quality plans under a five-star rating system. The number of stars is based on measures of clinical quality, patients' care experience, and contract performance. Under the PPACA provisions, plans with the highest ratings (four or more stars) would have been the plans receiving quality bonuses. However, from 2012 through 2014, CMS is replacing the PPACA bonus system with a program-wide demonstration that will incur higher program costs. Under the demonstration, plans with as few as three stars will be eligible for bonus payments and administrative measures will have a higher weight in the scoring. Giving bonuses to three-star plans dampens incentives for good performance; heavy reliance on administrative measures may not give sufficient weight to clinical outcomes. The Commission does not favor demonstrations that add program costs without furthering legitimate policy aims.

Status report on Part D

In Chapter 13, the Commission provides a status report on Part D that provides information on beneficiaries' access to prescription drugs—including enrollment figures and benefit design—program costs, and the quality of Part D services.

In early 2010, about 60 percent of the 46.5 million Medicare beneficiaries were enrolled in Part D plans,

slightly over 30 percent had other sources of drug coverage at least as generous as Part D's defined standard benefit, and 10 percent had no drug coverage or coverage less generous than Part D. Among those in Part D plans, about 10 million (about 36 percent of Part D enrollees) received the low-income subsidy (LIS). Roughly two-thirds of Part D enrollees are in stand-alone prescription drug plans (PDPs); the rest are in Medicare Advantage–Prescription Drug plans (MA–PDs). Most enrollees report high satisfaction with the Part D program and with their plans.

For 2011:

- Sponsors are offering fewer stand-alone PDPs and MA–PDs than in 2010. The reduction in plan offerings is primarily the result of CMS guidance to differentiate between basic and enhanced benefit plans as well as to reduce the number of plans with low enrollment and a decline in PFFS plans. These declines should not decrease access, as beneficiaries on average have from 28 to 38 PDP options to choose from, along with many MA–PDs, and more PDPs are available to LIS enrollees at no premium.
- The structure of drug benefits for both PDPs and MA–PDs held fairly steady—the share of plans with no deductible remains at about 40 percent for PDPs and close to 90 percent for MA–PDs. A larger share of PDPs will provide gap coverage—33 percent compared with 20 percent in 2010—while the share of MA–PDs with gap coverage remains at about 50 percent.
- For the basic portion of the benefit, CMS estimates an actual average monthly premium of \$30, which would be an increase by \$1 over the average in 2010.

In 2009, Part D spending totaled \$52.5 billion, and the Medicare Board of Trustees estimated it will have reached \$56 billion in 2010. These expenditures cover the direct monthly subsidy plans receive for their Part D enrollees, reinsurance for very high-cost enrollees, premiums and cost sharing for LIS enrollees, and payments to employers that continue to provide drug coverage to their retirees who are Medicare beneficiaries. In 2009, LIS payments continued to be the largest component of Part D spending.

CMS publishes 19 performance metrics aggregated into a five-star rating system. To date, the metrics focus mostly on customer service and enrollee satisfaction. Although the metrics now include some quality measures, additional measures on patient safety and appropriate medication use could provide further information on quality. ■

CHAPTER

1

**Context for Medicare
payment policy**

Context for Medicare payment policy

Chapter summary

Between 2009 and 2035, according to projections under current law, Medicare's share of total economic output is projected to rise from 3.5 percent to 5.5 percent (Boards of Trustees 2010). Further complicating Medicare's long-term outlook is a large non-Medicare federal fiscal burden: Debt held by the public is expected to near 70 percent of gross domestic product (GDP) within the next decade, a level not seen since World War II (Congressional Budget Office 2010a).

Medicare's cost growth does not occur in a vacuum—it is linked to other forces that drive growth in health care spending at rates well in excess of GDP. Health care spending has risen faster than GDP for over four decades (Congressional Budget Office 2010b). The reasons for this growth in health care spending are well established: advancements in technology, which include changes in the practice of medicine to help providers diagnose or treat illness and the diffusion of treatments to a wider population; changes in the makeup of insurance; and changes in household income and demographics.

Estimates of the magnitude of the various factors differ, but most analysts attribute the largest role in growth of health care spending to developments in technology. Health insurance is believed to affect health care spending at the individual level by increasing household consumption and at the macroeconomic level by helping to create a market for new technologies

In this chapter

- National health care spending and spending growth
- Reasons for growth in health care spending
- Medicare's financing challenge
- Medicare after PPACA

that is relatively insensitive to price. And although the aging of the population has not played a significant role in per capita health care spending growth to date, it will contribute to a significant increase in total federal spending on Medicare and Medicaid over the next few decades.

Medicare's spending growth has resulted in a significant share of federal tax revenues going to the program—despite dedicated payroll tax revenues, premiums, and cost sharing, Medicare also consumes 18 percent of all income tax revenue (Boards of Trustees 2010).

In their 2010 report, the Boards of Trustees project that growth in Medicare spending will be slower for the coming decade than the previous decade's growth rate. From 2000 to 2009, annual growth in total Medicare spending averaged 9.7 percent. In contrast, the Trustees estimate that total Medicare spending will grow by 6.0 percent annually from 2010 through 2019, due in part to changes made by the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act of 2010 (PPACA). The CMS Office of the Actuary estimates that the Medicare provisions in PPACA will reduce spending by \$575 billion over 10 years, resulting in Medicare spending that is 9 percent lower by 2019, compared with prior law (Foster 2010, Sisko et al. 2010).

This chapter establishes the context for the Medicare payment update recommendations in the rest of this volume. First, the chapter describes the makeup of national health care spending and historic and future trends in spending growth. The next section discusses the reasons why health care costs grow faster than the rest of the economy. The third section describes Medicare's financing challenges and the effect of PPACA. The fourth section concludes and reiterates the need to coordinate reforms across payers. ■

Introduction

Medicare is the largest single payer in the \$2.5 trillion health care sector, accounting for 20 percent of spending in 2009 (Centers for Medicare & Medicaid Services 2011). Medicare substantially reduces the health care cost burden for 46.3 million aged and disabled beneficiaries and provides nearly universal coverage for these populations; in 2009, 1.8 percent of people over age 65 were uninsured, compared with 18.8 percent of individuals under age 65 (Boards of Trustees 2010, DeNavas-Walt et al. 2010).

Medicare per capita spending growth has exceeded growth in gross domestic product (GDP) by 2.5 percentage points on average from 1975 to 2008 (Congressional Budget Office 2010b). This growth has resulted in a larger share of federal revenues going to Medicare and a larger burden on beneficiaries as a result of Medicare's cost-sharing provisions (Boards of Trustees 2010, Congressional Budget Office 2010b). The larger health care sector has also grown at rates well in excess of GDP, hampering growth in wages and creating pressure on all payers—federal, state, and private.

The Patient Protection and Affordable Care Act of 2010 (PPACA) is projected to make significant reductions in Medicare spending as compared with prior law, totaling \$575 billion over 10 years and slowing the average annual rate of growth for total Medicare spending over 2010–2019 from 6.8 percent under prior law to 6.0 percent (Boards of Trustees 2009, Boards of Trustees 2010, Foster 2010).¹ However, Medicare shortfalls remain over the longer term: According to projections under current law, the solvency of the Hospital Insurance trust fund was extended through 2029 but would be unable to pay full obligations after that date, and Medicare's share of GDP is projected to nearly double over the next 75 years.

National health care spending and spending growth

Medicare is one part of a health sector linked by related payment systems, providers, insurers, and manufacturers covering both Medicare and non-Medicare patients.

Health care sector constitutes significant share of the economy

The growth in health care spending exceeding GDP over many years has resulted in a health care sector that

makes up a significant share of the overall economy, employing 14.3 million individuals and comprising more than 595,000 separate establishments: doctors' offices, hospitals, clinical laboratories, nursing homes, and home health providers (Bureau of Labor Statistics 2009). Medicare-participating providers included 6,100 inpatient hospitals with 930,000 beds, 15,000 long-term care facilities, and more than 10,000 home health agencies (Centers for Medicare & Medicaid Services 2010). Total Medicare-participating physicians numbered over 616,000 in 2010, with the largest share specializing in internal medicine (17 percent) or family practice (13 percent) (Centers for Medicare & Medicaid Services 2010).

Sources of health care spending

Total national health spending was \$2.5 trillion in 2009, which corresponds to 17.6 percent of GDP (Figure 1-1, p. 6). Of this total, 32 percent of the spending is from private health insurance, 20 percent from Medicare, and 15 percent from Medicaid. Annual spending growth has slowed since the economic downturn, resulting in growth of 4.0 percent in 2009, the lowest yearly growth rate since the measurement of national health expenditures started (Centers for Medicare & Medicaid Services 2011). Even this lower level of growth in health care spending exceeded inflation growth, which was 2.7 percent in 2009 (Bureau of Labor Statistics 2011).²

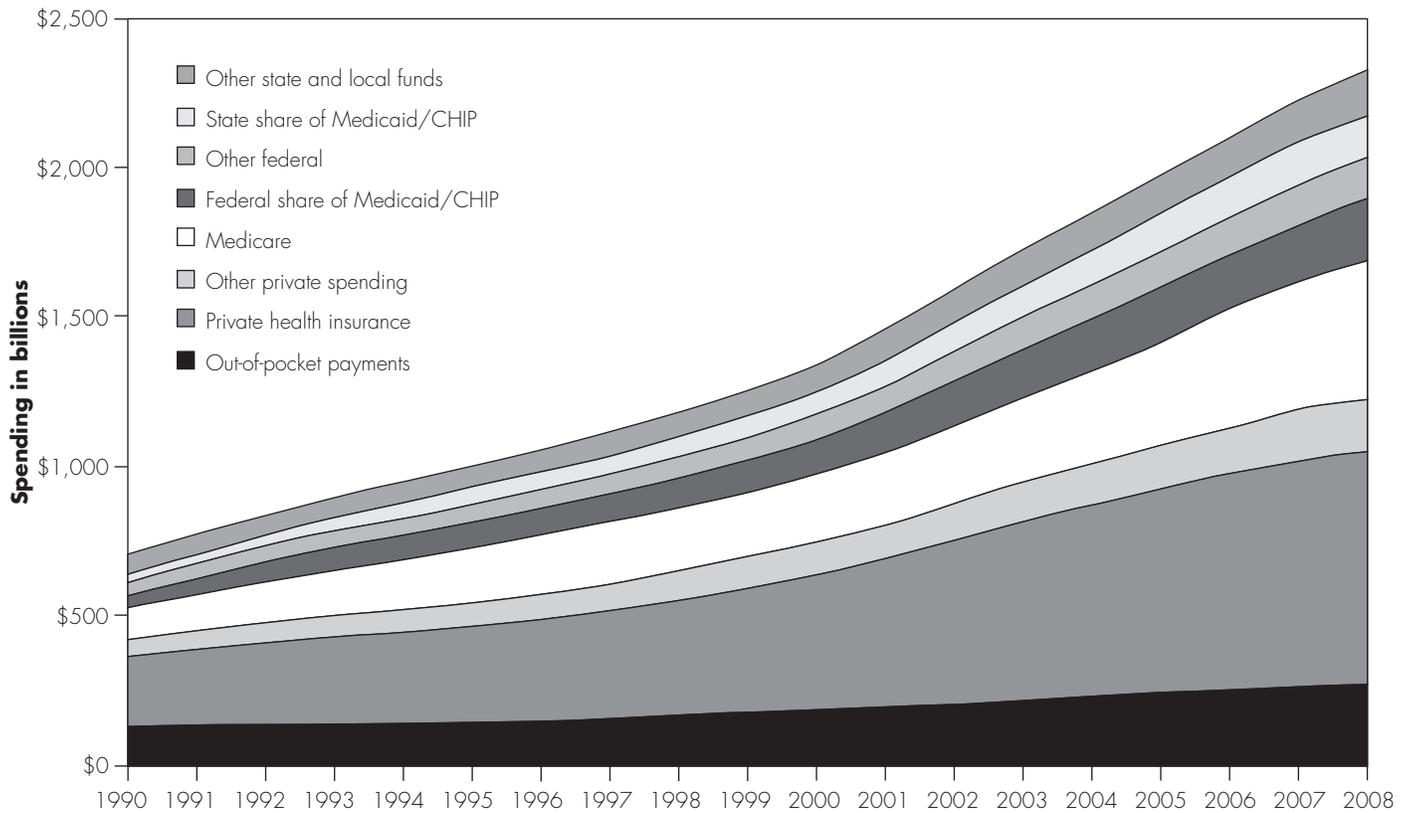
Components of health care spending

In 2009, the largest share of national health expenditures went to hospitals (31 percent), followed by physicians and clinical services (20 percent), and prescription drugs (10 percent). While overall national health spending grew by 4.0 percent, certain sectors grew faster—home health care grew by 10 percent and spending on prescription drugs grew by 5.3 percent (Centers for Medicare & Medicaid Services 2011).

The share of spending on health services and supplies by category differs by payer. For private health insurance, the share of spending on hospitals (33 percent) is similar to the share spent on physicians (30 percent). For Medicare, spending on hospitals accounts for a much larger share of spending on health services and supplies (44 percent), while spending on physicians accounts for 22 percent (Centers for Medicare & Medicaid Services 2011).

Health care spending has grown faster than the economy

Growth in health care spending in excess of growth in GDP is not a recent phenomenon—public and private

**FIGURE
1-1****National health spending by payer**

Note: CHIP (Children’s Health Insurance Program).

Source: CMS, National Health Expenditures.

payers have experienced growth in health spending in excess of growth in GDP for over 35 years.

High growth in spending for private and public payers

Historically, in some periods, growth in Medicare per capita spending has exceeded growth in private per capita spending, while in others, the opposite is true (Figure 1-2). There are four possible reasons for these differences: (1) Medicare and private insurance cover different benefits; (2) utilization of services is different; (3) the number of beneficiaries in Medicare, along with their risk profiles, has changed; and (4) the payment methods for Medicare have changed and differ from payment methods in the private sector. Finally, comparisons of public and private spending are sensitive to the time frame measured and adjusting for the differences in the characteristics of public

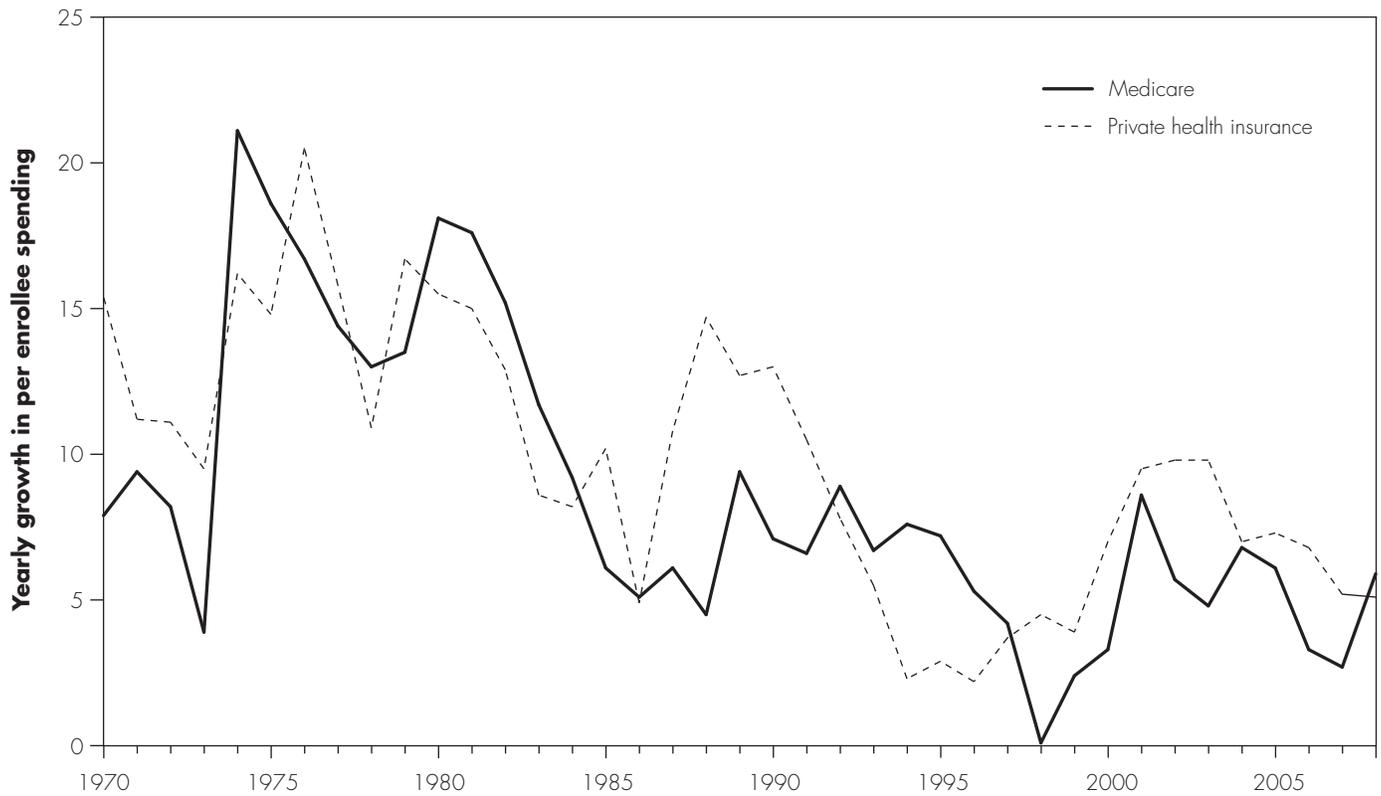
and private insurance such as benefit design, payment methods, and the patient population can be challenging.

Rise in health care spending as a share of GDP is projected for the near and longer term

Health spending is estimated to grow 6.3 percent between 2009 and 2019, rising from 17.3 percent of GDP in 2009 to 19.6 percent of GDP in 2019 (Sisko et al. 2010).³ The Congressional Budget Office (CBO) assumes that over the long term growth in health care spending will slow down as a share of GDP even in the absence of specific legislative action. Under CBO’s long-term baseline, Medicare spending is projected to slow between 2021 and 2084 from GDP plus 1.7 percent to GDP plus 1 percent (Congressional Budget Office 2010b). Even with this assumption, which is well below recent experience, under CBO’s baseline scenario, Medicare and other federal

**FIGURE
1-2**

Yearly growth of common benefits for Medicare and private health insurance



Note: Common benefits are hospital services, physician and clinical services, other professional services, and durable medical products.

Source: CMS, Office of the Actuary, National Health Statistics Group, National Health Expenditure Accounts, 2010.

health spending will consume nearly 60 percent of federal revenues by 2084 (Congressional Budget Office 2010b).

Growth in health care spending has not led to equivalent improvements in quality

Despite the rise in health care spending as a share of GDP, evidence as to whether this growth has resulted in commensurate improvements in quality or outcomes is mixed. In some instances, interventions have improved outcomes for a specific medical condition. However, many analysts contend that, in the aggregate, a material share of health care spending does not correspond to better outcomes or higher quality (New England Healthcare Institute 2008). In addition to outcomes of care such as rates of condition-specific mortality, readmissions, and potentially avoidable admissions, other indicators that can help frame discussions about health care quality, which are discussed in more detail below, include: variation in health care use by geographic location, compliance with

recommended practices, occurrence of adverse events such as medical errors and health-care-associated infections, and disparities across populations in obtaining appropriate care.

Health care use varies across geographic locations

The geographic variation in the amount of health care used for specific diseases or conditions is well documented, with differences persisting even after adjusting for severity. Areas with high utilization do not necessarily correspond to areas of better care (Fisher et al. 2003a, Fisher et al. 2003b). Prior work by the Commission found substantial geographic variation in the utilization of health care across the country, with service use 30 percent higher at the 90th percentile than at the 10th percentile (Medicare Payment Advisory Commission 2009b). A number of factors affect health care utilization, including providers' practice and care patterns, patients' expectations of care, health status, and supplemental coverage.

Adherence to recommended practices and occurrence of adverse events

Studies of the adherence to recommended care and studies of medical errors resulting in adverse events suggest that health care quality is not as high as may be expected given the large share of national resources devoted to it. In a 2003 study by Elizabeth McGlynn and colleagues, adults in the United States with certain conditions received care that was consistent with recommended practices only about half the time (McGlynn et al. 2003). Adherence to preventive care guidelines is also relatively low—in 2005, 63 percent of individuals age 65 or over received the recommended pneumococcal vaccination and 64 percent received the recommended influenza vaccine, although these rates have risen over time (Centers for Disease Control and Prevention 2006).

Adverse health events—injuries that result from medical mismanagement exclusive of the patient’s underlying health status—also occur (Schuster et al. 2005). One study found that adverse events accounted for at least 5 percent of all health care spending, and researchers estimate that half of them were potentially avoidable (New England Healthcare Institute 2008).

Disparities in access to care for certain populations

There is significant variation in the amount and quality of care that certain populations receive. The percentage of individuals with a regular source of care was significantly lower for poor individuals (80 percent) than for non-poor individuals (92 percent) (Agency for Healthcare Research and Quality 2010). Individuals who do not have a regular source of care have worse health outcomes and are less likely to be diagnosed in an early stage of disease. Lack of access to preventive care can result in patients using a higher intensity setting (such as the emergency department) than they would have needed otherwise (New England Healthcare Institute 2008).

The Commission’s March 2010 report includes a discussion of an annual survey sponsored by the Commission that assesses access to physician services for Medicare beneficiaries and for privately insured people age 50 to 64 years (Medicare Payment Advisory Commission 2010b). The survey found that most Medicare beneficiaries have reliable access to physician services. Access, as measured by the ability to obtain an appointment in 2009, did vary by race, with minority individuals (72 percent) somewhat less likely than whites (78 percent) to report that they never waited longer than

they wanted for routine care appointments (Medicare Payment Advisory Commission 2010b). There are parallel differences across race for privately insured individuals, but overall Medicare beneficiaries reported fewer access problems than privately insured people.

The share of patients receiving the recommended level of care for chronic conditions is lower for racial and ethnic minorities, even when the rates are adjusted for income, education, and health insurance status (Agency for Healthcare Research and Quality 2010). The share of diabetics receiving all three recommended services each year (eye examination, foot examination, and blood glucose testing) was significantly lower for Hispanics and those who are poor and near poor. Racial and ethnic minorities and lower income individuals are also less likely to receive recommended screenings and preventive care. This situation is true even for those with health insurance coverage, such as Medicare beneficiaries (Figure 1-3).

Comparison of the U.S. health system with other countries gives a mixed picture

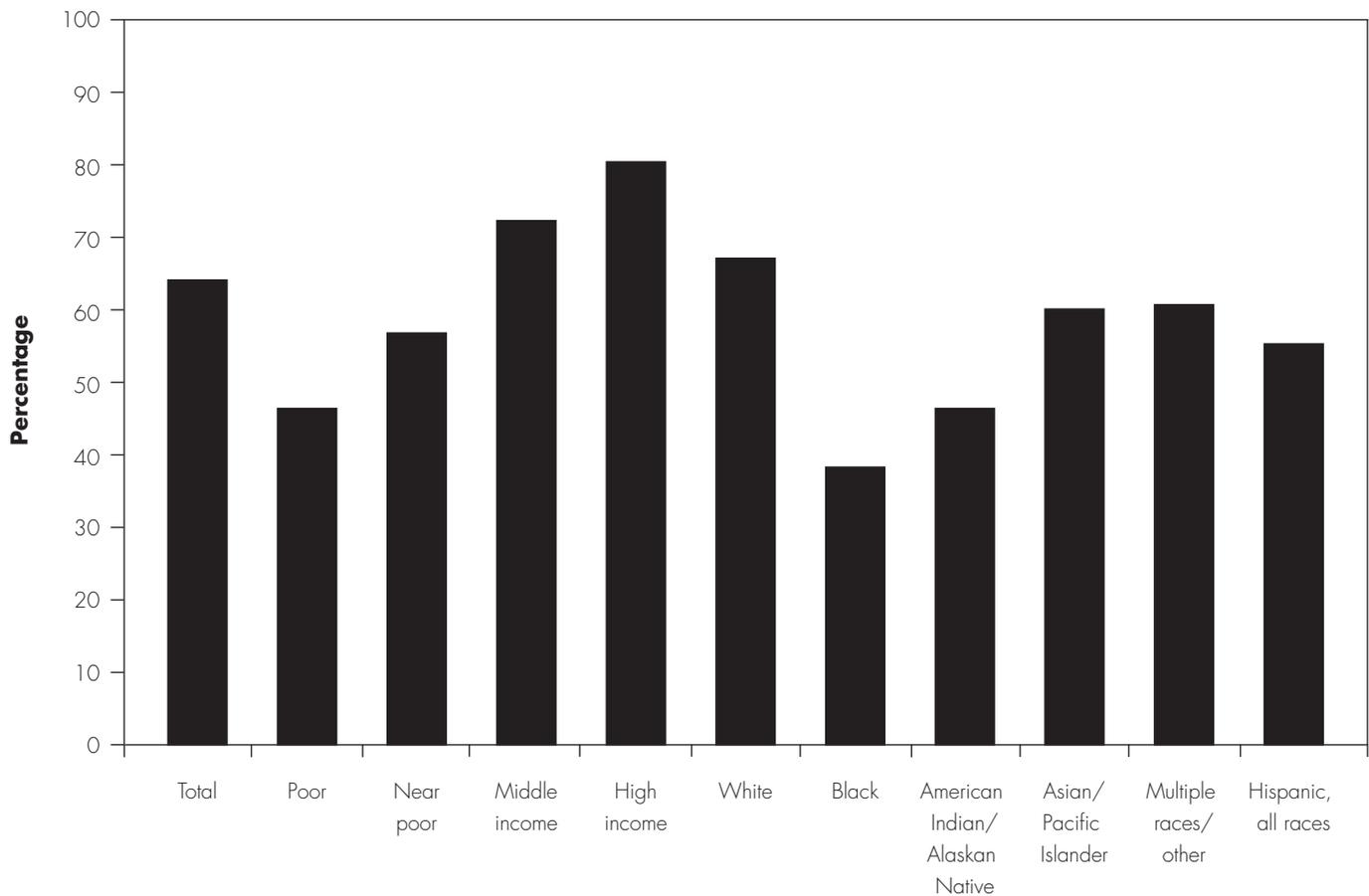
Spending in the United States on health care on a per capita basis or as a share of GDP is significantly larger than in other Organisation for Economic Co-operation and Development (OECD) countries, even when adjusted for purchasing power.⁴ In 2008, per capita spending in the United States was \$7,500, compared with the OECD average of \$3,100 (Organisation for Economic Co-operation and Development 2010).

Health care resources in the United States compared with other OECD countries

The higher level of spending in the United States does not necessarily correspond to more medical professionals or hospital beds. There are fewer medical professionals per capita in the United States (2.4 per thousand) than in the average OECD country (3.1 per thousand) (Organisation for Economic Co-operation and Development 2010). The United States also ranks relatively low on inpatient hospital capacity—it has 3.1 hospital beds per thousand people, whereas European countries range from 3.4 beds per thousand in the United Kingdom to 8.2 per thousand in Germany. Among other G8 countries, Japan is significantly higher, with 13.8 beds per thousand (Organisation for Economic Co-operation and Development 2010).⁵

**FIGURE
1-3**

Percentage of female Medicare beneficiaries age 65 or over who report being screened for osteoporosis, 2006



Source: Agency for Healthcare Research and Quality, national healthcare disparities report 2009.

Utilization and prices of health care services across countries

Differences in the amount of health care spending by country cannot be easily explained by comparing the amount of health care used by patients in the United States with use in other countries. On the contrary, the United States has fewer inpatient admissions per capita and the average hospital stay is shorter than in the median OECD country. The United States does have higher use per capita than the median OECD country of certain technology-intensive interventions, such as coronary angioplasty and dialysis (Anderson et al. 2003, Anderson et al. 2005), and the use of outpatient care for certain types of procedures is more common in the United States (McKinsey Global Institute 2008). However, the fact that utilization of health care in the United States does not appear to be

significantly higher than in other OECD countries has led some analysts to conclude that higher prices for medical care are largely responsible for the high level of health care spending in the United States compared with other OECD countries (Anderson et al. 2003).

Quality outcomes across countries

It is difficult to compare the quality of health care across countries using measures such as life expectancy, measures of the quality of the health care provided, patient and practitioner viewpoints, and safety because these aggregate measures also reflect underlying differences in the population. Among amenable deaths (those that may be avoidable through the provision of health care) the United States has the highest rates of mortality for certain conditions. However, the prevalence of disease for these

conditions is also higher in the United States—which illustrates the difficulty in measuring the quality of health care across countries using only mortality or other national statistics (Organisation for Economic Co-operation and Development 2010).

Quality measures on the provision of preventive care are also mixed, with the United States ranking higher on the share of individuals receiving cancer screenings but below other OECD countries on vaccinations (Docteur and Berenson 2009). Some studies have shown that the United States performs somewhat better at ensuring that patients with chronic illnesses receive recommended screening or treatments—85 percent of hypertensive patients in the United States received two recommended tests, the second highest rate among OECD countries (Docteur and Berenson 2009). Finally, survival rates are the highest in the United States for patients with five types of relatively common cancers (breast, colon, rectum, lung, and prostate), although screening rates are also higher in the United States, which may result in diagnosing more cancers earlier when they are more easily treated (Docteur and Berenson 2009).

Reasons for growth in health care spending

With persistent growth in health care spending that exceeds the growth in the size of the economy, two questions are in order: First, why does spending on health care grow so fast; second, are prices, utilization, or a combination of both causing the growth in health care spending?

Technology advances and rising prices are major drivers of growth in spending

Most analysts attribute a large share of growth in health care spending to technological advancement, defined broadly as improvements to health care services, products, and procedures. Prices in the health care sector have also grown faster than prices in other sectors, although the change in price may correspond to improvements in the quality of the service or product, which makes it difficult to isolate the effect of pure price changes on health care spending growth.

Technological advancement

Technology is generally identified as the largest single driver behind the growth in health care spending.

After conducting a literature review, CBO found that studies generally attribute roughly half of the spending growth in health care to advancements in technology (Congressional Budget Office 2008b). Smith and colleagues estimated that between 27 percent and 48 percent of the increase in health care spending was due to technological factors, a somewhat lower share than in prior studies (Newhouse 1992, Smith et al. 2009). In these studies, technology is a catch-all category that represents a wide range of changes in the allocation and use of health care services. For example, in the studies cited here, applying an intervention to a new population or in a new way would be categorized as a technological change. Similarly, changes in protocol, process, or procedures would also be classified as a technological change. While researchers can estimate the effect of a specific technological intervention in a specific clinical situation, to measure the causes of health care spending growth, studies generally use this broader definition of technological advancement.

Technological change in non-health sectors often results in lower costs for a specific innovation as more firms enter the market and prices fall due to competitive pressure from other firms. However, for a number of reasons technological change has not resulted in lower costs or slower spending growth in the health care sector. For most types of consumer goods, a relationship exists between market prices and total spending: Introduction of a new product may not result in high levels of demand until the price falls, when many consumers purchase it (Congressional Budget Office 2008b). However, in health care, patients and providers may be unaware of the true cost of a specific intervention because health insurance lessens the incentive to seek the lowest priced effective care. In addition, patients often lack complete information about the marginal effectiveness of a specific intervention, making it difficult to determine whether it is worth the incremental cost.

More recent analysis has speculated that isolating the effect of technological advancements may understate the role of interactions between technology and other factors that affect growth in health care spending. For example, some studies have theorized that widespread, comprehensive insurance coverage shapes the market for new medical interventions by ensuring a built-in market that is less sensitive to price (Finkelstein 2007, McKinsey Global Institute 2008, Smith et al. 2009). Further, while some technological improvements may shorten the duration or severity of a disease, other improvements may

make it possible to survive with a previously terminal condition, increasing total lifetime costs (McKinsey Global Institute 2008).

Growth in prices

Growth in prices for health care services is estimated to contribute to between 5 percent and 19 percent of total growth in health care spending, although these estimates are highly uncertain (Congressional Budget Office 2008b, Smith et al. 2009). Measuring the effect of price changes for a specific type of care across time is difficult, as the procedure or product may also change substantially.

Health insurance coverage, reimbursement, and provider market power also drive spending growth

The characteristics of health insurance coverage, including the generosity of the coverage, and fee-for-service provider payments also drive the growth in health care spending. In addition, consolidation among providers, which can lead to improved coordination and lower costs of producing services, can also lead to higher costs or lower efficiency if the consolidation results in a significant reduction in competition among providers and suppliers or if providers begin to compete by providing more services of questionable value.

Health insurance coverage

Evidence exists indicating that more comprehensive health insurance coverage (such as a lower deductible or cost sharing) increases consumption of health care services (Manning et al. 1987). The share of health spending paid out of pocket by enrollees in private insurance has dropped significantly, falling from 55 percent in 1960 to 14 percent in 2007 (Smith et al. 2009). Some analyses find that the increase in the generosity of health insurance may explain between 10 percent and 13 percent of the growth in health care spending (Congressional Budget Office 2008b).

The Commission's 2009 survey of health care use for Medicare beneficiaries with and without supplemental coverage (medigap, employer-sponsored retiree insurance, or Medicaid) found that spending in discretionary or elective categories of health care was higher for those with supplemental coverage (Medicare Payment Advisory Commission 2009a). Secondary coverage resulted in higher spending for Part B services; spending for office visits was 75 percent higher. Spending on elective admissions to inpatient hospitals was 90 percent higher for those with supplemental coverage than for those without

it. As might be expected, for urgent and emergency visits the level of spending was not significantly different for those with and without supplemental coverage (Medicare Payment Advisory Commission 2009a). One way to address spending on lower value care that results from blanket coverage policies is to implement the use of incentives such as differential cost-sharing amounts, which steer beneficiaries to high-value care (or steer them away from low-value care).

Some health insurance is also subsidized through the tax system. The value of employer-sponsored health insurance is deducted from taxable income, which provides an incentive to purchase insurance through one's employer. Some researchers have theorized that this tax preference encourages workers to receive more of their compensation in health insurance instead of wages than they might otherwise prefer (Feldstein 1973, Pauly 1986). Others have theorized that the tax preference for employer coverage helps correct for individuals undervaluing preventive care and overly discounting the long-term benefits of such care (Liebman and Zeckhauser 2008).

Payment incentives

Except for health maintenance organizations and other health plans that pay providers on a capitated per enrollee basis, fee-for-service payment is the dominant reimbursement method among public and private insurers. Fee-for-service payment creates incentives for providers to provide more care, and more intensive care, than may be medically indicated (Aaron and Ginsburg 2009). While the extent to which fee-for-service reimbursement is driving the *growth* of health care spending is not clear, it is generally believed to contribute to the high *level* of spending. Changes in the nature of insurance reimbursement, such as the use of managed care in the 1990s, did slow the growth in health care spending for a short period.

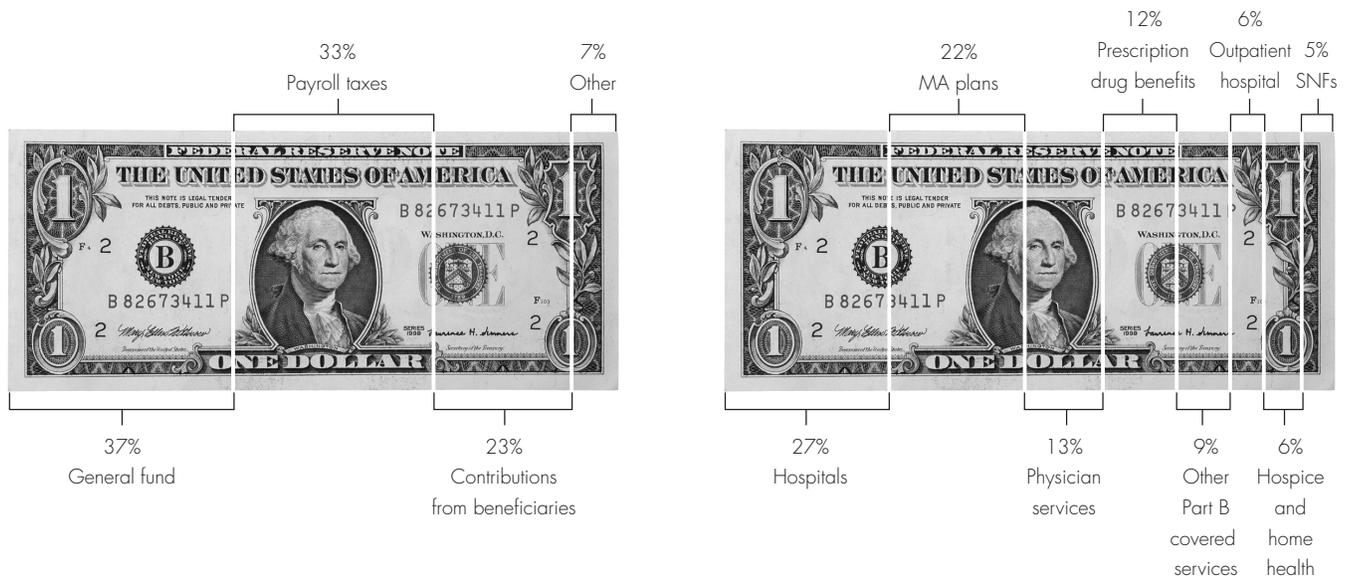
The current fee-for-service system breaks up the provider's treatment process into a set of procedures that reward the provider for greater service volume rather than care coordination. Alternative payment models discussed by the Commission and others, such as accountable care organizations (ACOs), payment bundling, and readmission policies encourage a more holistic approach to medical care, either by providing a financial incentive (ACOs and payment bundling) or by encouraging case coordination and oversight (e.g., through higher payments for primary care).

FIGURE 1-4

Sources and uses of funds for Medicare expenditures, 2010

Sources of funds for Medicare expenditures

Uses of funds for Medicare expenditures



Note: MA (Medicare Advantage), SNF (skilled nursing facility). Sources of funds graphic includes beneficiary premiums and cost sharing. Uses of funds graphic does not include expenditures funded by beneficiary cost sharing.

Source: 2010 annual report of the Boards of Trustees of the Medicare trust funds.

Waste, fraud, and abuse are also believed to make up a significant share of total spending on health care—in 2005, the Institute of Medicine estimated that between 30 percent and 40 percent of all health care spending was misspent (Reid et al. 2005). Fee-for-service reimbursement does not provide substantial control over fraudulent or wasteful spending, as no single provider bears the responsibility for the total cost of care. The Medicare program and private insurers use management and oversight techniques to limit fraud and abuse. However, under fee-for-service reimbursement, the financial incentive to conduct more medical care than may be appropriate remains.

Industry consolidation

Industry consolidation has the potential to improve efficiency and coordination across providers but can also lead to lower quality and higher prices (Vogt and Town 2006). The Commission has recommended that Medicare encourage collaboration between physicians and other providers for care coordination across multiple settings, while being attentive to concerns about market power (Medicare Payment Advisory Commission

2009a). Provider market power could result in higher private sector margins and higher costs, as providers may feel less pressure to keep costs down. Since Medicare reimbursement is generally fixed, those providers with high costs will tend to have lower Medicare margins. This process could lead to pressure for Medicare to keep up with the prices that market power can generate in the private sector (Stensland et al. 2010).

Changing demographics are expected to drive future growth in spending

Changes in the demographic and income profile of the population also play a role in the growth in health care spending, and aging will become a significant factor in future growth of federal health programs such as Medicare and Medicaid.

Demographic changes

Over the past 20 years, the effect of an aging population on overall growth in health spending has been relatively small. Between 1940 and 1990, Cutler, Newhouse, and Smith and colleagues found that the aging of the population contributed only 2 percent of the growth in

per capita health care spending, in contrast to the shares attributed to technology-related changes (between 38 percent and 65 percent) or changes in third-party payment (between 10 percent and 13 percent) (Congressional Budget Office 2008b, Cutler 1995, Newhouse 1992, Smith et al. 2000).

Despite the relatively small role that demographic changes have played in per capita or per beneficiary growth in health care spending to date, the aging of the population will significantly increase total spending for federal health programs over the next 25 years as the population eligible for these programs grows and a larger share of individuals have multiple chronic conditions. The aging of the population is estimated to account for 45 percent of the total spending growth in Medicare and Medicaid between 2010 and 2035 (Congressional Budget Office 2010b). The Congressional Budget Office estimates that even if federal health care spending grew at the rate of GDP, total federal spending on health care would grow from 5.5 percent today to 9 percent of GDP in 2035, solely due to the aging of the population (Congressional Budget Office 2010b).

Individual health behaviors such as smoking and obesity also affect the rate of growth and level of health care spending and will do so in the future. Cutler found that the decline in smoking among adults in the United States contributed to improvements in cancer mortality (Cutler 2008). Medicare spending for enrollees who were overweight or obese in early to middle adulthood was significantly higher than for Medicare enrollees who were not overweight in adulthood (Daviglius et al. 2004). Overall, improvements in morbidity from specific illnesses can reduce annual health care spending, but increases in longevity could increase total lifetime spending on health care.

Income and wealth

Growing income and wealth are also widely acknowledged to increase consumption of health care services, and some research has indicated that the income effect may interact with the technology effect (McKinsey Global Institute 2008, Smith et al. 2009). A recent study found that the wealth effect is almost as large as the technology effect in explaining growth in health care spending in the United States (Smith et al. 2009). To the extent that growth in household income slows to historic averages, this effect may play less of a role in future growth in health care spending.

Medicare's financing challenge

In 2009, the Medicare program spent \$509 billion, financed through a mix of dedicated taxes, general revenues, premiums, and cost sharing. The Medicare Trustees estimate that between 2010 and 2019, per beneficiary Medicare spending will increase from \$11,963 to \$15,749 annually, growing on average 3.1 percent per year. Medicare's share of the economy will continue to grow between 2010 and 2035, from 3.6 percent to 5.5 percent (Boards of Trustees 2010).

Federal revenues are Medicare's major funding source; hospitals and Medicare managed care plans account for largest spending shares

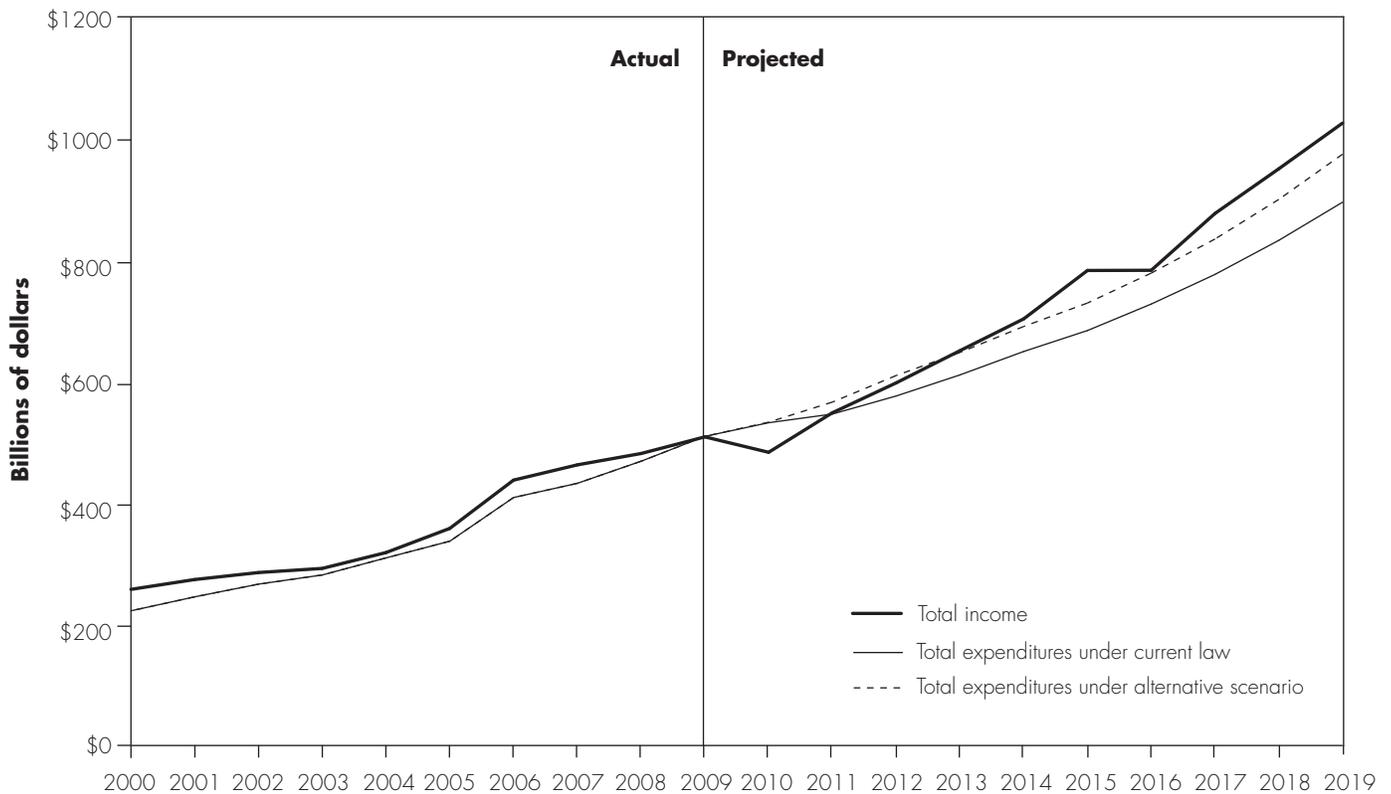
Payroll taxes and the general fund are Medicare's largest funding source. Approximately 23 percent of Medicare revenue in 2010 is from beneficiary contributions, 33 percent is from payroll taxes, and 37 percent is from the general fund (Figure 1-4). Each part of Medicare has a different funding arrangement:

- Part A (hospital insurance) is funded through a payroll tax of 2.9 percent on all earned income. Higher income taxpayers must also pay an additional tax of 0.9 percent starting in 2013.
- Part B (supplementary medical insurance) is funded through beneficiary premiums and general revenue transfers in proportion to the premiums collected, roughly equaling one-quarter from beneficiary premiums and three-quarters from general revenues.
- Part C (Medicare Advantage, Medicare's managed care option) is funded through beneficiary premiums and transfers from Part A and Part B.
- Part D (prescription drug benefit) is funded through enrollee premiums, general revenue transfers, and transfers from states.

Payments to hospitals (27 percent) and Medicare Advantage plans (22 percent) account for the largest shares of Medicare spending. Payments to physicians and other practitioners account for 13 percent of total spending, and payments for prescription drugs account for 12 percent of spending (Figure 1-4).

**FIGURE
1-5**

Total Medicare income and expenditures



Note: The difference reflected in the alternative scenario is the changes to physician payments, which would take effect inside the 10-year window.

Source: 2010 annual report of the Boards of Trustees of the Medicare trust funds.

Growth in Medicare spending is projected to continue

Medicare is projected to grow at 6.0 percent annually between 2010 and 2019—Part A is projected to grow at 4.8 percent and Part B is projected to grow at 5.8 percent (Boards of Trustees 2010). As a result of Medicare’s funding mechanisms, this growth rate will affect taxpayers and current Medicare beneficiaries.

The 2010 Trustees’ report projects that the actuarial balance for the Hospital Insurance (HI) trust fund has improved as a result of PPACA to –0.66 percent of taxable payroll (from the Trustees’ projected –3.88 percent in 2009) and that the HI trust fund exhaustion date has been extended to 2029. The share of Medicare that is paid by general revenues is expected to rise between 2010 and 2030 from 43 percent to 48 percent, an improvement over the Trustees’ projection before the enactment of PPACA, under which the share financed by general revenues was

to have reached 53 percent by 2030 (Boards of Trustees 2009, Boards of Trustees 2010).

There may be reasons to expect that actual Medicare growth will exceed these estimates. First, the current law projections assumed that Medicare reimbursement to physicians would be reduced by 30 percent over the next three years as a result of the sustainable growth rate (SGR) formula. These reductions have been delayed in the past, and in Public Law 111-309 (the Medicare and Medicaid Extenders Act of 2010) the rate reductions required by the SGR were deferred until the end of 2011. Second, the projections assume that the productivity adjustments to the provider payment updates in PPACA will be implemented as scheduled and kept in place throughout the 75-year projection period.

For these reasons, the Medicare Trustees in their 2010 report asked the CMS Office of the Actuary to estimate

**TABLE
1-1**

Medicare financial outlook, 2010 Trustees' report

Category	2010 report (current law)	2010 report (alternative scenario)	2009 report
HI Trust Fund exhaustion date	2029	2028	2017
Growth rate, 2010–2019			
Total Medicare	6.0%	6.9%	6.8%
Part A	4.8	4.8	6.5
Part B	5.8	8.1	6.3
Part D	10.3	10.3	9.3
Total Medicare share of GDP in 2084	6.38%	10.75%	11.18%

Note: HI (Hospital Insurance), GDP (gross domestic product). Growth rates represent the cumulative annual growth rate between 2010 and 2019, based on Table III.A1, Table III.B4, Table III.C8, and Table III.C19 of the 2010 Trustees' report. The growth rates for the 2009 column are measured over 2009–2018. Alternative scenario assumes physician payments are updated by the Medicare Economic Index starting in 2011 and the Patient Protection and Affordable Care Act of 2010 productivity adjustments are in place through 2019 and subsequently phased out over the 2020 to 2035 period.

Source: 2009 and 2010 annual reports of the Boards of Trustees of the Medicare trust funds, and Shatto and Clemens 2010.

Medicare spending under an alternative scenario (Figure 1-5). The alternative scenario assumes that the productivity adjustments are in effect through 2019 and are phased out over the following 15 years and that physician payments are updated by the Medicare Economic Index. Under this scenario, Medicare's growth rate over 2010–2019 would be 6.9 percent, a magnitude similar to the Trustees' projection before passage of PPACA (Table 1-1) (Shatto and Clemens 2010). Similarly, under the alternative scenario for Part B physician reimbursement, the 10-year annual growth rate for Part B would be 8.1 percent, versus 5.8 percent if statutorily mandated reductions to physician payments required by the SGR had taken effect (Shatto and Clemens 2010).

The effect of Medicare growth on beneficiaries

In 2006, Medicare paid for approximately 55 percent of the average beneficiary's current health costs; out-of-pocket spending covered 19 percent; other sources (such as medigap and employer coverage) covered 19 percent; and Medicaid covered 7 percent (Federal Interagency Forum on Aging-Related Statistics 2010). According to consumer expenditure data from 2002, 21 percent (\$1,616) of total consumption (such as food, housing, and other amenities) among those age 65 or older was for out-of-pocket medical care (Social Security Administration 2007). Medicare's spending growth translates directly to higher cost-sharing amounts that will consume a larger

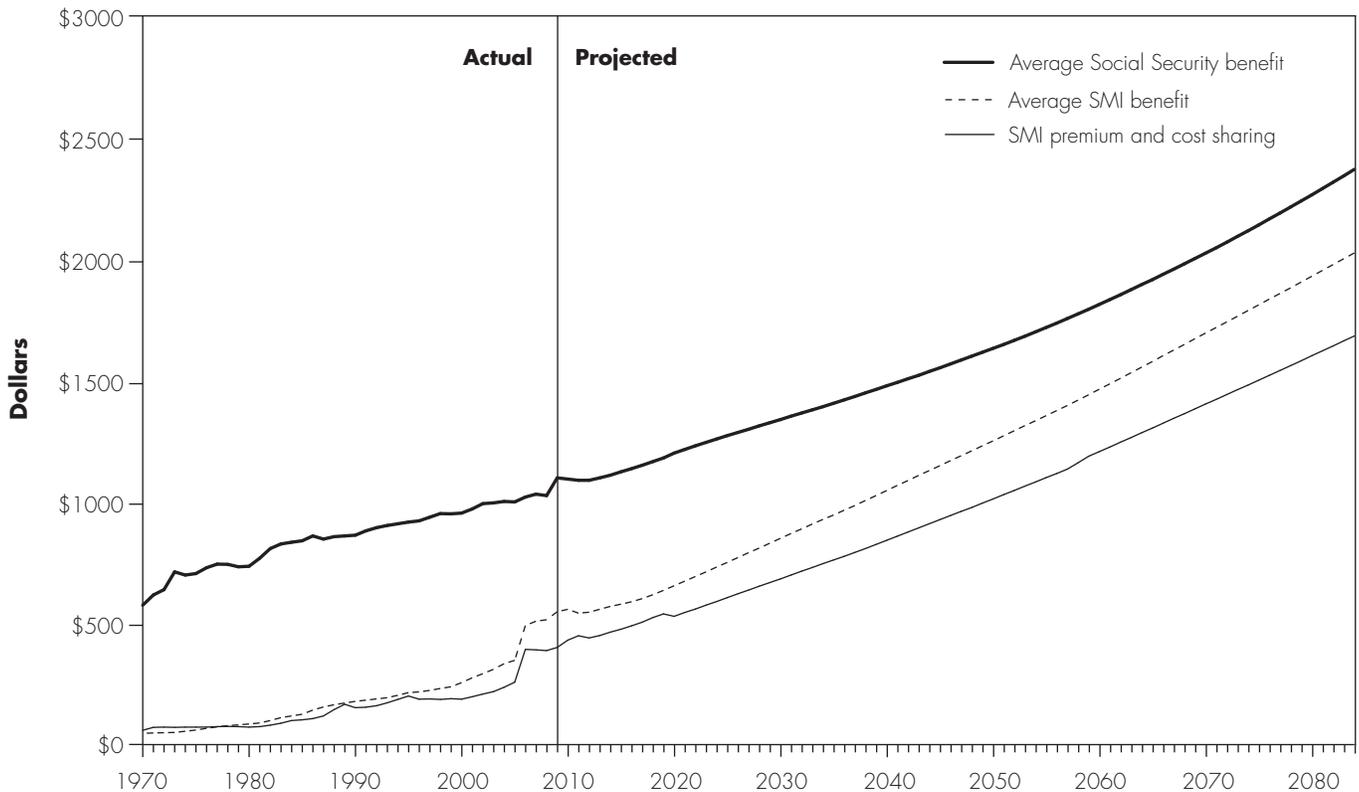
share of beneficiary resources.⁶ The average beneficiary contribution for Part B and Part D (including premium and cost sharing) amounts to 27 percent of the average Social Security benefit in 2010, and this amount is projected to grow to 50 percent of the average Social Security benefit by 2080 (Figure 1-6, p. 16) (Boards of Trustees 2010).

Part B premium hold-harmless provision

Since 2009, the Part B premium has remained at \$96.40 for about 75 percent of beneficiaries as a result of the hold-harmless provision that prevents the Part B premium increase from growing more than the cost-of-living adjustment (COLA) for a beneficiary's Social Security check. After a 5.8 percent COLA in December 2008, the COLA was zero in December 2009 and is projected to be zero in December 2010 and 1.2 percent in December 2011 (Boards of Trustees 2010). The hold-harmless provision does not apply to four groups: those dually eligible for Medicaid, new Medicare beneficiaries, those subject to the Part B income-related premium, and individuals who buy into Part A because they are not insured under Social Security. Although the pool of beneficiaries who are required to pay the premium increase is smaller, the amount of money needed to finance Part B is the same. As a result, the premium increase for those who pay the premium increase is about four times as large as it would have been had the hold-harmless provision not been in effect.

**FIGURE
1-6**

Monthly SMI benefits and out-of-pocket costs are projected to grow at a faster rate than monthly Social Security benefits



Note: SMI (Supplementary Medical Insurance). Average SMI benefit and average SMI premium plus cost-sharing values are for a beneficiary enrolled in Part B and (after 2006) Part D. Beneficiary spending on outpatient prescription drugs before 2006 is not shown.

Source: 2010 annual report of the Boards of Trustees of the Medicare trust funds.

PPACA changes designed to slow Medicare spending growth, modify beneficiaries' financial liabilities, and introduce health system reforms

PPACA made substantial changes to Medicare reimbursement by putting in place yearly adjustments to the payment updates as well as a productivity adjustment for most providers and revising payments for the Medicare Advantage program. PPACA also changed payroll taxes for current workers and premiums and cost-sharing amounts for current Medicare beneficiaries. Finally, it established a center to test different approaches to reforming the delivery system. (See text box for PPACA's changes affecting non-Medicare health insurance programs and payers.)

PPACA provisions affecting Medicare spending growth

PPACA made compounding changes in the payment updates for almost all Medicare providers. The law specifies yearly adjustments on varying schedules in the next 10 years for certain providers and a yearly reduction in the market basket equal to economy-wide productivity for most providers. The Medicare Trustees estimated in 2010 that the productivity adjustment, which would be applied to most providers' market basket updates, would equal 1.1 percent per year over the long term (Boards of Trustees 2010).

The law will also change the benchmarks for Medicare Advantage plans. The Commission has estimated that Medicare paid about \$14 billion more in 2009 for

Non-Medicare provisions of the Patient Protection and Affordable Care Act of 2010

The Patient Protection and Affordable Care Act of 2010 also made substantive changes to Medicaid and private health insurance that are likely to have wide-ranging effects on the entire health care system. The law expands Medicaid coverage and creates new health insurance subsidies. It establishes health insurance exchanges and institutes an individual mandate to purchase coverage.

Medicaid expansion and health insurance subsidies

The law expands Medicaid coverage up to 133 percent of the federal poverty threshold in 2014 for nearly all nonelderly individuals. States expanding coverage are eligible for a full federal match for 2014 and 2015 for these newly eligible individuals, and the share declines over time to 90 percent. The law establishes premium and cost-sharing subsidies to purchase health insurance for individuals and families at or below 400 percent of the federal poverty threshold. If individuals and families do not obtain creditable health insurance coverage, they may be subject to a penalty. The penalty is waived for certain groups, including those who are low income, those who cannot obtain affordable coverage, and those without insurance for less than three months.

Penalties are also applied to employers who do not offer affordable coverage and whose employees receive subsidized health insurance through the exchanges.

Health insurance exchanges and changes to the private market

Each state may set up a health insurance exchange to offer health insurance plans in up to four benefit categories. Plans available through the exchanges will be eligible for the premium and cost-sharing subsidies. The law also imposes new federal requirements on established plans in the small group and individual market.

Tax changes

The law applies an excise tax to high-cost employer-sponsored health insurance plans beginning in 2018. The law also makes changes to medical savings accounts and flexible spending accounts and eliminates the tax deduction for subsidies employers receive under Medicare Part D's retiree drug subsidy program. Finally, a 3.8 percent tax is applied to unearned income above the \$200,000 and \$250,000 thresholds for taxpayers. ■

Medicare Advantage enrollees than if they had been enrolled in fee-for-service Medicare (Medicare Payment Advisory Commission 2010b). PPACA would reset the benchmarks for Medicare Advantage plans and introduce a bonus system based on quality. The law also establishes an Independent Payment Advisory Board, which is required to further modify Medicare if the growth in per capita spending exceeds thresholds set out in the law.⁷

PPACA changes to beneficiary cost sharing and taxation

PPACA has three main provisions affecting current Medicare beneficiaries. It freezes the income thresholds for the Part B income-related premium at 2010 values through 2019 and establishes an income-related premium for Part D that applies at the same income thresholds as the Part B income-related premium. The law phases out the Medicare Part D coverage gap by 2020 by reducing the coinsurance rate over time from 100 percent to 25 percent,

slowing the growth in the out-of-pocket threshold for catastrophic coverage, and allowing more costs to count toward meeting the catastrophic threshold. Finally, for current workers, the law expands the HI tax by 0.9 percent for individuals making more than \$200,000 and married couples making more than \$250,000 per year. These revenues are dedicated to the HI trust fund.

PPACA provisions on system reform

PPACA puts in place a number of studies and pilots to introduce elements of shared responsibility across providers, including bundling payments for inpatient hospital care; allowing providers to organize as ACOs; and establishing a shared savings program. PPACA also establishes the Center for Medicare and Medicaid Innovation, which is charged with piloting payment structures that could reduce program spending across Medicare, Medicaid, and private health insurance. Pilots

**TABLE
1-2**

Effect of PPACA on Medicare spending and revenues

Category	Change (in billions)	
	2010–2014	2010–2019
Market basket revisions and productivity adjustments	\$-30	\$-205
MA reductions	-41	-145
Other FFS provisions	-23	-135
Revenue provisions	-20	-90
Total	-114	-575

Note: PPACA (Patient Protection and Affordable Care Act of 2010), MA (Medicare Advantage), FFS (fee-for-service). The market basket total includes effects on the MA program as a result of the MA benchmarks being set relative to FFS rates, which are affected by the market basket revisions and productivity adjustments. Market basket revisions include all of Section 3401 as amended.

Source: Foster 2010.

that improve quality without increasing costs or reduce costs without harming quality can be expanded nationally by the Secretary.

The law also establishes an office in CMS to coordinate services for beneficiaries dually eligible for Medicare and Medicaid. Dual-eligible enrollees face special challenges in navigating two complex federal health care programs, neither of which is specifically charged with coordinating their care. Prior work by the Commission has illustrated that the population of dual-eligible beneficiaries is not homogeneous and that programs to coordinate care for them should recognize the different needs of distinct subgroups (Medicare Payment Advisory Commission 2010a).

Potential effect of PPACA depends on terms and assumptions used

National health expenditures are projected to grow by 6.3 percent on average during 2009–2019, compared with 6.1 percent if PPACA had not been enacted (Sisko et al. 2010). This total masks significant changes by payer: Medicare spending is expected to be lower by 9 percent in the 10th year as compared with prior law and Medicaid spending is projected to be higher by 12 percent in the 10th year (Sisko et al. 2010).

The CMS Office of the Actuary notes that two provisions—the productivity adjustment to Medicare

payment updates and the excise tax on high-cost employer health plans—are likely to lower the health spending growth rate over the longer term. The Office of the Actuary notes that the projected lower growth rate would “depend critically on the sustainability of both provisions” (Foster 2010).

Potential effect of PPACA on growth in Medicare spending

The provider-specific adjustments, the productivity adjustments, and the changes to Medicare Advantage plan payments are projected to substantially slow the rate of Medicare growth. Medicare would grow by 6.0 percent annually in 2010–2019 compared with 6.8 percent projected last year under prior law (Boards of Trustees 2009, Boards of Trustees 2010). Overall, PPACA is estimated to lower federal spending for Medicare by \$575 billion over 10 years (Table 1-2) (Foster 2010).⁸ The cost of the coverage expansions in Medicaid and establishment of the health insurance subsidies within the 10-year window were largely offset by the reduction in Medicare spending. Some observers have questioned whether the reduction in Medicare spending in PPACA can result in both an improvement in the solvency of the Part A trust fund and an offset for the cost of the PPACA coverage expansions (Congressional Budget Office 2010c).

Potential effect of PPACA on beneficiary cost sharing

PPACA’s changes to Medicare spending also will affect beneficiary premium and cost-sharing amounts. Compared with prior law, in 2019 PPACA is projected to reduce the monthly Part B premium amount by \$18.20 and to increase the monthly Part D premium amount by \$1.66. Annual coinsurance amounts are also projected to be lower in 2019 than under prior law—Part A coinsurance is projected to be \$47 lower, Part B coinsurance is projected to be \$160 lower, and Part D coinsurance is projected to be \$259 lower (Shatto 2010). These numbers illustrate the effect of slower growth in Medicare cost on beneficiaries’ out-of-pocket costs.

Medicare after PPACA

As the first PPACA provisions affecting the Medicare program take effect, there will be much more information about the likely effect of the Medicare provisions on beneficiaries and providers. Also, as the economy recovers, policymakers may focus on reducing the deficit,

resulting in further modifications to Medicare and other federal health programs. PPACA sets in place many experiments to test potential innovations for improving patient care at lower cost, such as facilitating the creation of ACOs and shared savings programs and setting up the Center for Medicare and Medicaid Innovation. These pilots and initiatives will demand rigorous analysis of their effect on spending and quality of care.

Despite the downward payment adjustments to Medicare providers in PPACA, the Medicare program is still projected to grow at rates in excess of GDP under either the current law scenario or the alternative scenario discussed in the 2010 Trustees' report, resulting in Medicare spending absorbing a larger share of additional federal revenues. Addressing the long-term spending trajectory of the program and assessing whether other payment models offer better outcomes for beneficiaries and providers remain urgent priorities for the Medicare program. Finally, while Medicare represents the health care system's largest single payer, reform of the delivery system would be more effective if Medicare partners or coordinates with other payers.

Medicare's ability to unilaterally drive wholesale behavior changes through performance and quality measurement or payment reforms is likely limited as a result of the multiple payers and providers involved in health care delivery. One option is to encourage a focus on collaboration across payers.

However, no matter how subtle and inventive an intervention, it is unlikely to succeed absent a coordinated effort among all entities involved in health care delivery—providers, patients, insurers, and other payers. Subjecting providers to multiple sets of reporting requirements or treatment guidelines for different groups of patients confounds practitioners' clinical decision making and increases the administrative burden of health care delivery.

Conflicting incentives and inconsistent reporting requirements create confusion for providers and dilute the effect of any one intervention (Lee et al. 2010). Experts contend that coordination of care is hampered by fragmentation at the payer level. A recent survey of health care opinion leaders found that most respondents believe lack of alignment of policies and practices between public and private payers is a very significant (36 percent of respondents) or extremely significant (39 percent of respondents) barrier to creating population-based, accountable care systems (Stremikis et al. 2010). Furthermore, coordination of care among physicians and other practitioners in the fee-for-service environment entails a significant burden. One study found that, for an average physician with 100 Medicare patients, care coordination would require interacting with 99 other physicians in 53 separate practices (Pham et al. 2009).

To be sure, coordination of reforms across payers will also be challenging, despite the clear potential for benefits. As long as participation in payment and delivery reforms by private payers is voluntary, Medicare will need to present compelling reasons for private insurers to participate. However, requiring private payers to participate in coordinated reform efforts may hamper innovation or run counter to the private payers' specific situation, such as their model of care delivery.

Efforts to achieve coordination of the health care delivery system across payers are intended to ensure that reforms are coherent and that they consider payers' individual circumstances, such as the populations they cover. Coordinated reforms are also intended to minimize the burden on providers by establishing exactly what is expected of them and reducing inconsistent requirements. Without a coordinated approach, reforms to improve outcomes for beneficiaries, providers, and payers are not likely to succeed. ■

Endnotes

- 1 Throughout this report, the Patient Protection and Affordable Care Act and the Health Care and Education Reconciliation Act are jointly referred to as PPACA.
- 2 This figure calculates the growth in the consumer price index for all urban consumers from December 2008 through December 2009, not seasonally adjusted.
- 3 These figures are projections and incorporate the effects of PPACA.
- 4 These figures are adjusted for purchasing power by comparing prices for a fixed basket of goods.
- 5 G8 countries include Canada, France, Germany, Italy, Japan, Russia, the United Kingdom, and the United States.
- 6 Average Social Security benefits generally grow with average wage growth, and the Part B premium and cost-sharing amounts are projected to grow significantly faster.
- 7 From 2014 to 2019, the per capita threshold is the five-year moving average of consumer price index and medical consumer price index. The measurement starts in 2013, with the first proposals due from the Independent Payment Advisory Board January 2014, to take effect in 2015.
- 8 All Medicare provisions in total (including the revenue provisions) are estimated to save \$575 billion over 10 years.

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CHAPTER

2

**Assessing payment adequacy
and updating payments in
fee-for-service Medicare**

Assessing payment adequacy and updating payments in fee-for-service Medicare

Chapter summary

The Commission makes payment update recommendations annually for fee-for-service (FFS) Medicare. An update is the amount (usually expressed as a percentage change) by which the base payment for all providers in a prospective payment system is changed. To determine an update, we first assess the adequacy of Medicare payments for providers in the current year (2011) by considering beneficiaries' access to care, the quality of care, providers' access to capital, and Medicare payments and providers' cost. Next, we assess how those providers' costs are likely to change in the year the update will take effect (the policy year—2012). Finally, we make a judgment on what, if any, update is needed.

This year, we make update recommendations in 10 FFS sectors: hospital inpatient, hospital outpatient, physician and other health professional, ambulatory surgical center, outpatient dialysis, skilled nursing, home health, inpatient rehabilitation, long-term care hospital, and hospice. These update recommendations can significantly change the revenues providers receive from Medicare and help create pressure for broader reforms to address the fundamental problem in FFS payment systems—that providers are paid more when they deliver more services without regard to the quality or value of those additional services.

In this chapter

- Are Medicare payments adequate in 2011?
- What cost changes are expected in 2012?
- How should Medicare payments change in 2012?
- Payment adequacy in context

We also consider other changes that redistribute payments within a payment system to improve equity among providers and to correct any biases that may make patients with certain conditions financially undesirable or particular procedures unusually profitable. Each year, the Commission looks at all the indicators of payment adequacy and reevaluates any prior year assumptions using the most recent data available to make sure its recommendations accurately reflect current conditions. ■

The goal of Medicare payment policy should be to obtain good value for the program’s expenditures, which means maintaining beneficiaries’ access to high-quality services while encouraging efficient use of resources. Anything less does not serve the interests of the taxpayers and beneficiaries who finance Medicare through their taxes and premiums. Necessary steps toward achieving this goal involve:

- setting the base payment rate (i.e., the payment for services of average complexity) at the right level;
- developing payment adjustments that accurately reflect market, service, and patient cost differences beyond providers’ ability to control; and
- considering the need for annual payment updates and other policy changes.

Our general approach to developing payment policy recommendations attempts to do two things: first, make enough funding available to ensure that payments are adequate to cover the costs of efficient providers, and second, improve payment accuracy among services and providers. Together, these two steps should maintain Medicare beneficiaries’ access to high-quality care while creating financial pressure on providers to make better use of taxpayers’ and beneficiaries’ resources.

In the first step, we endeavor to base our judgment on payment adequacy on the performance of efficient providers in a sector. Efficient providers use fewer inputs to produce quality outputs. Efficiency could be increased by using the same inputs to produce a higher quality output or by using fewer inputs to produce the same quality output. We have started to explore ways to approximate the characteristics of efficient providers. For example, we continue to examine the financial performance of hospitals with consistently low risk-adjusted costs per discharge, mortality, and readmissions (Medicare Payment Advisory Commission 2009, Medicare Payment Advisory Commission 2010). We also continue our analysis of efficient providers in the skilled nursing facility (SNF) sector. We have found that there are some SNFs that have considerably lower costs than others and substantially better quality (Medicare Payment Advisory Commission 2010). We plan to continue to refine our identification of efficient providers in the SNF and hospital sectors and extend our efficient provider analysis to additional sectors. However, for many sectors we are limited by the available data to assessing the

aggregate performance in a sector over both efficient and inefficient providers.

To help determine the appropriate level of aggregate funding for a given payment system in 2012, we first consider whether payments are adequate for providers in 2011. To inform the Commission’s judgment, we examine information on beneficiaries’ access to care, the quality of care, providers’ access to capital, and Medicare payments and providers’ costs for 2011. We then consider how providers’ costs will change in 2012. Taking these factors into account, we then determine how Medicare payments for the sector in aggregate should change in 2012.

Within a given level of funding, we may also consider changes in payment policy that would affect the distribution of payments among providers within a sector. The intent is to change the incentives and thus improve equity among providers or improve access to care for beneficiaries. For example, we have made recommendations to remove biases in the SNF prospective payment system (PPS) that make treating complex patients less financially desirable than treating patients who need therapy.

We compare our recommendations for updates and other policy changes for 2012 with current law to understand the implications for providers, beneficiaries, and the Medicare program. As has been the Commission’s policy in the past, we consider our recommendations each year in light of the most current data and do not make multiple-year update recommendations.

Are Medicare payments adequate in 2011?

The first part of the Commission’s approach to developing payment updates is to assess the adequacy of current Medicare payments. For each sector, we make a judgment by examining information on:

- beneficiaries’ access to care
- the quality of care
- providers’ access to capital
- Medicare payments and providers’ costs for 2011

Some measures focus on beneficiaries (e.g., access to care) and some focus on providers (e.g., the relationship

between payments and costs in 2011). We consider multiple measures because the direct relevance, availability, and quality of each type of information vary among sectors, and no single measure provides all the information needed for the Commission to judge payment adequacy.

Beneficiaries' access to care

Access to care is an important indicator of the willingness of providers to serve Medicare beneficiaries and the adequacy of Medicare payments. For example, poor access could indicate Medicare payments are too low. However, other factors unrelated to Medicare's payment policies may also affect access to care. These factors include coverage policy, beneficiaries' preferences, supplemental insurance, and transportation difficulties.

The measures we use to assess beneficiaries' access to care depend on the availability and relevance of information in each sector. We use results from several surveys to assess physicians' willingness to serve beneficiaries and beneficiaries' opinions about their access to physician care. For home health services, we examine data on whether communities are served by providers.

Access: Capacity and supply of providers

Rapid growth in the capacity of providers to furnish care may increase beneficiaries' access and indicate that payments are more than adequate to cover their costs. Changes in technology and practice patterns may also affect providers' capacity. For example, less invasive procedures or lower priced equipment could increase providers' capacity to provide certain services.

Substantial increases in the number of providers may suggest that payments are more than adequate and could raise concerns about the value of the services being furnished. For instance, rapid growth in the number of home health agencies (HHAs) suggests that Medicare's payment rates are at least adequate and potentially more than adequate and, because the growth has been accompanied by increased cases of fraud, raises concerns about the definition of the benefit. If Medicare is not the dominant payer for a given provider type, changes in the number of providers may be influenced more by other payers and their demand for services and thus may be difficult to relate to Medicare payments. When facilities close, we try to distinguish between closures that have serious implications for access to care in a community and those that may have resulted from excess capacity. Another

possible indicator of a sector's capacity and overall financial health is employment, which has been increasing in the health care sector in the past three years even as overall nonfarm employment has decreased. We continue to explore the utility of employment as an indicator of capacity and payment adequacy.

Access: Volume of services

The volume of services can be an indirect indicator of beneficiary access to services. An increase in volume shows that beneficiaries are receiving more services and thus must at least be able to access those services—although it does not necessarily demonstrate that the services are appropriate. Volume is also an indicator of payment adequacy; an increase in volume beyond that expected for the increase in the number of beneficiaries could suggest that Medicare's payment rates are too high. Very rapid increases in the volume of a service might even raise questions about program integrity or whether the definition of the corresponding benefit is too vague. Reductions in the volume of services, on the other hand, may indicate that revenues are inadequate for providers to continue operating or to provide the same level of services. Finally, rapid changes in the volume of services between sectors whose services can be substituted may indicate distortions in payment and raise questions about provider equity.

However, changes in the volume of services are often difficult to interpret because increases and decreases could be explained by other factors such as population changes, changes in disease prevalence among beneficiaries, technology, practice patterns, and beneficiaries' preferences. For example, the number of Medicare beneficiaries in the traditional fee-for-service (FFS) program has decreased in recent years as more beneficiaries choose plans in the Medicare Advantage program; therefore, we look at the volume of services per FFS beneficiary as well as the total volume of services. Explicit decisions about service coverage can also influence volume. For example, in 2004 CMS redefined conditions it thought appropriate for treatment in inpatient rehabilitation facilities (IRFs) and excluded rehabilitation for most hip and knee replacements, a decision that contributed to a reduction in IRF volume through 2009. However, these cases increased in SNFs and HHAs over the same period, suggesting that beneficiaries' access to care was maintained. Changes in the volume of physician services must be interpreted particularly cautiously, because some evidence suggests that volume may go

up when payment rates go down—the so-called volume offset. Whether this phenomenon exists in any other sector depends on how discretionary the services are and on the ability of providers to influence beneficiaries' demand for the services.

Quality of care

The relationship between quality and Medicare payment adequacy is not direct. Some might argue that poor quality is a result of inadequate payments. But increasing payments through an update for all providers in a sector regardless of their individual quality is unlikely to solve quality problems, because historically there has been little or no incentive in Medicare payment systems for providers to spend additional resources on improving quality. Medicare's payment systems are not generally based on quality; payment is usually the same regardless of the quality of care. In fact, undesirable outcomes (e.g., unnecessary complications) may result in additional payments, and sectors with more than adequate payments may have little incentive to improve quality.

The Commission has recommended for the past several years that a fundamental change is needed to create incentives in Medicare FFS payment systems to reward better quality, and the program recently has begun to implement several quality-based payment policies. Specifically, in 2004 and 2005 the Commission recommended that pay-for-performance programs should be implemented for hospitals, physicians, dialysis providers, HHAs, and Medicare Advantage plans (Medicare Payment Advisory Commission 2004, Medicare Payment Advisory Commission 2005). In 2008, the Commission recommended that pay for performance should be adopted for SNFs (Medicare Payment Advisory Commission 2008). CMS is moving ahead with several policies to link provider payments to quality, including an end-stage renal disease (ESRD) quality improvement program for dialysis providers that will apply to ESRD PPS payments starting on January 1, 2012; a Medicare Advantage quality bonus payment program that also will start in 2012; an inpatient hospital value-based purchasing program starting in fiscal year 2013; and a value-based payment modifier, which will combine quality and resource use measurements, for payments to physicians under the physician fee schedule beginning in 2015. The agency is also developing a report to the Congress, due in October 2011, for a plan to implement a value-based purchasing program for SNFs and HHAs. The Commission will continue to encourage CMS to

implement these important payment policy reforms and will monitor the agency's progress.

Providers' access to capital

Access to capital is necessary for providers to maintain and modernize their facilities and capabilities for patient care. Widespread inability to access capital throughout a sector may in part reflect on the adequacy of Medicare payments (or, in some cases, even on the expectation of changes in the adequacy of Medicare payments). Some sectors, such as hospitals, require large capital investments and access to capital can be a useful indicator. In other sectors, such as home health care, there is little need for large capital investments and access to capital is a more limited indicator. In some cases, a broader measure, such as employment, may be a better indicator of financial health within a sector. Similarly, in sectors where providers derive most of their payments from other payers or other lines of business, or when conditions in the credit markets are extreme, access to capital may be a limited indicator of the adequacy of Medicare payments.

The past few years have seen dramatic changes in financial markets. In late 2008, because of the extraordinary conditions in the credit market, access to capital was being driven almost entirely by factors other than Medicare payment adequacy and markets essentially froze. In 2009, liquidity began to return and in 2010 credit markets appear to have returned to more normal conditions under which access to capital depends on borrowers' individual circumstances and credit worthiness.

Medicare payments and providers' costs for 2011

For most payment sectors, we estimate Medicare payments and providers' costs for 2011 to inform our update recommendations for 2012.

For providers that submit cost reports to CMS—acute care hospitals, SNFs, HHAs, outpatient dialysis facilities, IRFs, long-term care hospitals, and hospices—we estimate total Medicare-allowable costs and assess the relationship between Medicare's payments and those costs. We typically express the relationship between payments and costs as a payment margin, which is calculated as aggregate Medicare payments for a sector less costs divided by payments. By this measure, if costs increase faster than payments, margins will decrease.

In general, to estimate payments, we first apply the annual payment updates specified in law for 2010 and 2011 to our

2009 base data. We then model the effects of other policy changes that will affect the level of payments in 2011. To estimate 2011 costs, we consider the rate of input price inflation and historic cost growth. As appropriate, we adjust for changes in the product, such as fewer visits in an episode of home health care, and trends in key indicators, such as historic cost growth, and the distribution of cost growth among providers.

Using margins

In most cases, we assess Medicare margins for the services furnished in a single sector and covered by a specific payment system (e.g., SNF or home health services). However, in the case of hospitals, which often provide services that are paid for by multiple Medicare payment systems, our measures of payments and costs for an individual sector could become distorted because of the allocation of overhead costs or complementarities of services. (For example, having a hospital-based SNF may allow a hospital to achieve shorter lengths of stay in its acute care units.) For hospitals, we assess the adequacy of payments for the whole range of Medicare services they furnish—inpatient and outpatient (which together account for more than 90 percent of Medicare payments to hospitals), SNF, home health, psychiatric, and rehabilitation services—and compute an overall Medicare hospital margin encompassing Medicare-allowed costs and payments for all the sectors. The hospital update recommendation in Chapter 3, however, applies only to hospital inpatient and outpatient payments; the payments for other distinct units of the hospital, such as a SNF, are governed by payment rates for those payment systems.

Total margins—which include payments from all payers as well as revenue from nonpatient sources—do not play a direct role in the Commission’s update deliberations. The adequacy of Medicare payments is assessed relative to the costs of treating Medicare beneficiaries, and the Commission’s recommendations address a sector’s Medicare payments, not total payments. We calculate a sector’s Medicare margin to determine whether total Medicare payments cover average providers’ allowable costs and to inform our judgment about payment adequacy. There will always be a distribution of margins about the average and it is not the intent to ensure that every provider has a positive margin. To assess whether changes are needed in the distribution of payments, we calculate Medicare margins for certain subgroups of

providers with unique roles in the health care system. For example, because location and teaching status enter into the payment formula, we calculate Medicare margins based on where hospitals are located (in urban or rural areas) and their teaching status (major teaching, other teaching, or nonteaching).

Multiple factors can contribute to changes in the Medicare margin, including changes in the efficiency of providers, changes in coding that may change the case-mix adjustment of the payment unit, and other changes in the product (e.g., reduced lengths of stay at inpatient hospitals). Information about the extent to which these factors have contributed to margin changes may help in deciding how much to change payments.

Finally, the Commission makes a judgment when assessing the adequacy of payments relative to costs. No single standard governs this relationship for all sectors, and margins are only one indicator for determining payment adequacy. Moreover, although payments can be known with some accuracy, there may be no “true” value for reported costs, which reflect accounting choices made by providers (such as allocations of costs to different services) and the relation of service volume to capacity in any given year.

Appropriateness of current costs

Our assessment of the relationship between Medicare’s payments and providers’ costs is complicated by providers’ efficiency and response to changes in the payment system, product changes, and cost-reporting accuracy. Measuring the appropriateness of costs is particularly difficult in new payment systems because changes in response to the incentives in the new system are to be expected. For example, the number and types of visits in a home health episode changed significantly after the home health PPS was introduced, although the payments were based on the older, higher level of use and costs. In other systems, coding may change. As an example, the hospital inpatient PPS recently introduced a new patient classification system that eventually will result in more accurate payments. However, in the near term, it has resulted in higher payments because provider coding improved, making patient complexity appear higher—although the underlying patient complexity was unchanged. Any kind of rapid change in policy, technology, or product can make it difficult to measure costs per unit of comparable product.

To assess whether reported costs reflect the costs of efficient providers, we examine recent trends in the average cost per unit of output, variation in standardized costs and cost growth, and evidence of change in the product being furnished. One issue Medicare faces is the extent to which private payers exert pressure on providers to constrain costs. If private payers do not exert pressure, providers' costs will increase and, all other things being equal, margins on Medicare patients will decrease. Providers that are under pressure to constrain costs generally have managed to slow their growth in cost more than those that face less pressure (Gaskin and Hadley 1997, Medicare Payment Advisory Commission 2005). Lack of cost pressure would be more common in markets where a few providers dominate and have negotiating leverage over payers (Berenson et al. 2010).

In contrast, some have suggested that hospital costs, for example, are largely outside the control of hospitals and hospitals shift costs onto private insurers to offset Medicare losses. This belief argues that costs are immutable and are not influenced by whether the hospital is under financial pressure. We find that costs do vary in response to financial pressure and that low margins on Medicare patients can result from a high cost structure that has developed in reaction to high private-payer rates. (See the hospital chapter in our 2009 report for a more complete discussion of the relation between cost pressure and Medicare margins (Medicare Payment Advisory Commission 2009).)

Variation in cost growth among providers in a sector can give us insight into the range of performance that facilities are capable of achieving. For example, if some providers in a given sector have more rapid growth in cost than others, we might question whether those increases are appropriate.

Changes in product can significantly affect unit costs. Returning to the example of home health services, substantial reductions in the number of visits in home health episodes would be expected to reduce the growth in costs per episode. If costs per episode instead increased while the number of visits decreased, one would question the appropriateness of the cost growth.

In sum, Medicare payment policy should not be designed simply to accommodate whatever level of cost growth a sector demonstrates. Cost growth can oscillate from year to year depending on economic conditions, relative market power, and other factors. Policymakers should

accommodate cost growth in payment policy only after taking into account a broad set of payment adequacy indicators, including the current level of Medicare payments.

What cost changes are expected in 2012?

The second part of the Commission's approach to developing payment update recommendations is to consider anticipated cost changes in the next payment year. This step incorporates not only the uncertainties discussed above concerning what cost growth is appropriate but also the uncertainty of any projection into the future. For each sector, we review evidence about the factors that are expected to affect providers' costs. One factor is the change in input prices, as measured by the applicable CMS price index. For facility providers, we start with the forecasted increase in an industry-specific index of national input prices, called a market basket index. For physician services, we start with a CMS-derived weighted average of price changes for inputs used to provide physician services. Forecasts of these indexes approximate how much providers' costs would change in the coming year if the quality and mix of inputs they use to furnish care remained constant—that is, if there were no change in productivity. Other factors may include the trend in actual cost growth, which could be used to inform our estimate if it differs significantly from the projected market basket.

How should Medicare payments change in 2012?

The Commission's judgments about payment adequacy and expected cost changes result in an update recommendation for each payment system. Each year we look at all the indicators of payment adequacy and reevaluate any prior year assumptions using the most recent data available. In conjunction with the update recommendations, we may also make recommendations about the distribution of payments among providers. These distributional changes are sometimes, but not always, budget neutral. Our recommendations for pay for performance are one example of distributional changes that will affect providers differentially based on their performance.

Choosing the appropriate sector in post-acute care

The recuperation and rehabilitation services that post-acute care (PAC) providers furnish are important to Medicare beneficiaries. Medicare beneficiaries can seek this care in four different PAC settings: skilled nursing facilities, home health agencies, long-term care hospitals, and inpatient rehabilitation facilities. As with any service, Medicare's goal should be to ensure that beneficiaries receive appropriate, high-quality care in the least costly setting appropriate for their clinical condition. However, there are four obstacles to making that determination in the case of PAC:

- Payments are not accurately calibrated to costs in each sector.
- Services overlap among settings.
- The PAC product is not well defined.

- Patient assessment instruments differ among settings.

Refining the prospective payment systems and their case-mix systems will not fully resolve issues of whether patients go to the lowest cost, appropriate post-acute setting or whether they need PAC at all. Some patients may recover and recuperate at home using outpatient services or they may do better by staying a few more days in the acute care hospital. Medicare would also want to make sure that beneficiaries receive the most clinically appropriate and effective care, regardless of the setting. To this end, the Commission is looking beyond payment adequacy to think more broadly about how to match patients who use PAC with the set of services that can provide the best outcomes at the lowest cost. Payments should reflect the characteristics of the patients' care needs, not the setting. ■

The Commission also considers how its update recommendations will affect payment differentials across sectors. A complexity of Medicare is that a beneficiary can sometimes receive a similar service in different sectors. Depending on what sector the beneficiary chooses, Medicare and the beneficiary pay different amounts. For example, patients with joint replacements might go home with home health care or outpatient therapy, to a SNF, or to an IRF upon leaving the hospital, and Medicare payments (and beneficiary cost sharing) can differ widely as a result. Two issues need to be explicated. First, which is the most appropriate setting for the beneficiary to receive the care? Second, do the different payment rates create incentives for providers that might influence the choice of sectors?

Determining the most appropriate setting is not a simple problem. In the text box we discuss the example of choosing the appropriate setting for post-acute care. Paying different amounts for the same service can create problems as well. For example, a beneficiary could receive an identical service in an outpatient clinic or a physician's office. In fact, the same physician could see the same patient and provide the same service, but depending on whether the sign over the door says outpatient clinic or

physician office the payment can differ by 50 percent to 60 percent, and the cost to the beneficiary can range from 20 percent of the lower payment to well over 20 percent of the higher payment. In the most extreme case, a beneficiary may have to pay the inpatient deductible for post-acute care in an inpatient post-acute setting rather than nothing in the home health setting.

The Commission, as it makes its update recommendations, may, in some cases, take these payment differentials across sectors into consideration and make sure the relative update recommendations for the sectors do not exacerbate any existing incentives to choose the setting based on payment considerations.

The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 requires the Commission to consider the budget consequences of our recommendations. We document in this report how spending for each recommendation would compare with expected spending under current law. For each sector, we develop rough estimates of the impact of recommendations relative to the current budget baseline, placing each recommendation into one of several cost-impact categories. In addition, we assess the impacts of our recommendations on beneficiaries and providers.

Payment adequacy in context

As discussed in Chapter 1, it is essential to look at payment adequacy not only within the context of individual payment systems but also in terms of Medicare as a whole. The Commission is alarmed by the trend in Medicare spending per beneficiary—a growth rate well above that of the economy overall—without a commensurate increase in value to the program, such as higher quality of care or improved health status. If unchecked, the growth in spending, combined with aging of the baby boomers, will result in the Medicare program absorbing unprecedented shares of the gross domestic product and of federal spending. Slowing the increase in Medicare outlays is important; indeed, it is urgent. Medicare’s rising costs, coupled with the projected growth in the number of beneficiaries, will significantly burden taxpayers.

The financial future of Medicare prompts us to look at payment policy and ask what can be done to develop, implement, and refine payment systems to reward quality and efficient use of resources while improving payment equity.

In many past reports, the Commission has stated that Medicare should institute policies that improve the value of the program to beneficiaries and taxpayers. CMS is beginning to take steps on this road such as pay for

performance, which links payments to the quality of care providers furnish, and collecting and distributing information about how providers’ practice styles and use of resources compare with those of their peers. We discuss these steps in more detail in the sector-specific chapters that follow. Ultimately, increasing the value of the Medicare program to beneficiaries and taxpayers requires knowledge about the costs and health outcomes of services. Until more information on the comparative effectiveness of new and existing health care treatments and technologies is available, patients, providers, and the program will have difficulty determining what constitutes high-quality care and effective use of resources.

As we examine each of the payment systems, we also look for opportunities to develop policies that can create incentives for providing high-quality care efficiently across providers and over time. Some of the current payment systems create strong incentives for increasing volume, and very few of these systems encourage providers to work together toward common goals. New programs such as accountable care organizations may start to address these issues but their impact lies in the future. In the near term, the Commission must continue to closely examine a broad set of indicators, make sure there is consistent pressure on providers to control their costs, and set a demanding standard for determining which providers qualify for a payment update each year. ■

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CHAPTER

3

**Hospital inpatient and
outpatient services**

R E C O M M E N D A T I O N

- 3** The Congress should increase payment rates for the acute care hospital inpatient and outpatient prospective payment systems in 2012 by 1 percent. The Congress should also require the Secretary of Health and Human Services to make adjustments to inpatient payment rates in future years to fully recover all overpayments due to documentation and coding improvements.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Hospital inpatient and outpatient services

Chapter summary

From 2008 to 2009, Medicare payments per fee-for-service (FFS) beneficiary for hospital inpatient and outpatient services grew by 6 percent. As a result, the 3,500 hospitals paid under the hospital inpatient prospective payment system received \$148 billion for roughly 10 million Medicare inpatient admissions and 147 million outpatient services. To evaluate whether payments were adequate, we consider changes in beneficiaries' access to care, the volume of services provided, quality of care, hospitals' access to capital, and the relationship of Medicare's payments to the average cost of caring for Medicare patients. In addition to examining the costs of the average provider, we also compare Medicare payments with the costs of relatively efficient hospitals.

Assessment of payment adequacy

In considering its update recommendation, the Commission has struck a balance between a number of competing factors. On the one hand, average total Medicare margins are negative (–5 percent in 2009 and projected to reach –7 percent in 2011). On the other hand, our update framework indicators (access to care—including supply and service volume, quality of care, and access to capital) are positive. Furthermore, negative Medicare margins do not necessarily mean that payments are too low because low margins are due at least in part to the lack of private financial pressure for cost containment, and

In this chapter

- Are Medicare payments adequate in 2011?
- How should Medicare payments change in 2012?

the set of hospitals identified as efficient have a positive median Medicare margin of about 3 percent. Considering these circumstances, the Commission contemplated an update of 2.5 percent.

However, two additional considerations led the Commission to its recommended update of 1 percent. For inpatient services, the Commission and others have documented past and ongoing overpayments resulting from changes in documentation and coding after implementation of Medicare severity–diagnosis related groups (MS–DRGs) in 2008. Current law does not allow recovery of past overpayments for 2010 and 2011 and no action has been taken to stop the ongoing overpayments. The Commission believes that all overpayments should be recovered and that the most urgent step is to stop the ongoing overpayments. To accomplish this objective, the Commission would reduce the ongoing overpayment by 1.5 percentage points—that is, the difference between its contemplated update of 2.5 percent and its recommended update of 1 percent. This change would account for 1.5 percentage points of the 3.9 percent adjustment needed to fully prevent accumulation of further overpayments.

For outpatient hospital services, the Commission is concerned that significant payment disparities among Medicare’s ambulatory care settings (hospital outpatient departments, ambulatory surgical centers, and physicians’ offices) for similar services are fostering undesirable financial incentives. Physician practices and ambulatory surgical centers may reorganize as hospital outpatient entities in part to receive higher reimbursements. The Commission believes that Medicare should seek to pay similar amounts for similar services, taking into account differences in the quality of care and in the relative risks of patient populations. The Commission is concerned by the incentive to reorganize for higher reimbursement and will further examine this issue. However, in the interim, the modest update of 1 percent is warranted in the hospital outpatient setting to slow the growing payment rate disparities among ambulatory care settings.

Beneficiaries’ access to care—Access measures include the capacity of providers and changes in the volume of services over time.

- ***Capacity and supply of providers***—The supply of hospitals, range of services offered, and number of hospital employees all continue to grow.
- ***Volume of services***—The volume of hospital outpatient services per Medicare FFS beneficiary grew by 4 percent per year from 2005 to 2009. Part of the growth was due to a shift of services from the inpatient to the outpatient setting. As outpatient volumes have increased, we have seen a decline in inpatient admissions per beneficiary of 1 percent per year from 2005 to 2009. We are also

seeing a shift in the site of physician office visits from freestanding physician offices to hospital-owned physician offices that are deemed parts of outpatient departments. Hospital-based outpatient physician office visits grew by 9 percent from 2008 to 2009, representing a quarter of all outpatient volume growth.

Quality of care—Quality continues to improve on most measures. Hospitals reduced in-hospital and 30-day mortality rates across five prevalent clinical conditions. Patient experience measures have shown a slight improvement in recent years. But, patient safety indicators and readmission rates have not improved significantly.

Providers' access to capital—Access to capital has been volatile over the past three years but appears adequate at this time. Since the freeze of the credit markets in late 2008, credit has been increasingly accessible to hospitals each year. Interest rates paid by hospitals are at their lowest level in three years. Hospital bond offerings declined from 2008 to 2009, but they remain high. Hospital construction spending also remains at a high level. Hospital consolidation through mergers and acquisitions remains steady.

Medicare payments and providers' costs—In 2009, Medicare margins improved. Medicare payment growth outpaced cost growth for two reasons. First Medicare inpatient payments per discharge grew by 5.3 percent, which was the highest growth in payments in over a decade. The high increase in the average payment rate reflects the update in payment rates and the effect of hospitals' documentation and coding improvements interacting with the full phase-in of MS-DRGs and cost-based relative weights in 2009. Costs per discharge grew by 3.0 percent, which was the lowest cost growth since 2000. The lower cost growth reflects the hospital industry's response to the financial crisis that occurred in fall 2008, which increased pressure on hospitals to constrain their cost growth in 2009.

Efficient providers—A key question is whether current Medicare payments are adequate to cover the costs of efficient providers. To explore this question, we have examined financial outcomes for a set of hospitals that consistently perform relatively well on cost, mortality, and readmission measures. We found that Medicare payments cover the fully allocated costs of the median efficient hospital (median margin is 3 percent). While most of these relatively efficient hospitals generate profits on Medicare patients, about one-third do not.

Documentation and coding adjustment

As expected, implementation of MS-DRGs in 2008 gave hospitals a financial incentive to improve medical record documentation and diagnosis coding to more

fully account for each patient's severity of illness. While documentation and coding improvements (DCI) appropriately improve measurement of patient severity, they also can increase reported case mix under MS-DRGs even if patients' levels of illness and resource needs are not different from prior years. The result was strong growth in payments per case in 2008 and 2009. Analysis by CMS found (and our analysis concurred) that payments increased by a total of 5.8 percent over the two years due to coding improvements. Current law requires CMS to recover these overpayments during 2011 and 2012. CMS implemented a temporary 2.9 percent reduction in payments in 2011 to recover half the overpayments. CMS will have to keep this adjustment in place in 2012 so that all overpayments from 2008 and 2009 can be recovered.

While CMS is recovering past overpayments for 2008 and 2009, it chose not to reduce rates to prevent further overpayments in 2010 and 2011. The result is that overpayments of 3.9 percent occurred in 2010 and continue in 2011. To prevent the accumulation of further overpayments, CMS would have to permanently reduce payments by 3.9 percent. In our March 2010 report, we recommended that CMS reduce payment rates to prevent future overpayments due to DCI and that the Congress change the law to allow CMS to gradually recover all overpayments due to DCI. This policy would enable CMS to make the transition to MS-DRGs fully budget neutral while still providing hospitals with predictable annual payment updates. ■

**TABLE
3-1**

Growth in Medicare inpatient and outpatient spending

Hospital services	2004	2008	2009	Mean annual change 2004-2009	Change 2008-2009
Inpatient services					
Total FFS payments (in billions)	\$100	\$110	\$114	2.7%	3.7%
Payments per FFS enrollee	2,831	3,202	3,337	3.6	4.2
Outpatient services					
Total FFS payments (in billions)	24	31	34	8.6	11.2
Payments per FFS enrollee	723	988	1,104	10.6	11.7
Inpatient and outpatient services					
Total FFS payments (in billions)	124	140	148	3.8	5.3
Payments per FFS enrollee	3,554	4,191	4,441	5.0	6.0

Note: FFS (fee-for-service). Reported hospital spending includes all hospitals covered by Medicare’s inpatient prospective payment system along with critical access hospitals. Maryland hospitals are excluded. Fiscal year 2009 payments include partial imputation to account for hospitals that typically do not submit their cost reports to CMS before CMS makes the most recent year available to the public. Although the number of Medicare beneficiaries grew significantly from 2004 to 2009, the number of FFS beneficiaries declined over that time due to the shift of beneficiaries to the Medicare Advantage program. For the purposes of calculating payments per FFS beneficiary, we identified populations of FFS beneficiaries eligible for inpatient (Part A) and outpatient (Part B) coverage and excluded enrollees in Maryland. Due to rounding, totals may not equal the sum of their parts.

Source: MedPAC analysis of CMS hospital cost reports and MedPAR files.

Background

Hospitals provide Medicare beneficiaries with inpatient care for the diagnosis and treatment of acute conditions and manifestations of chronic conditions. They also provide ambulatory care through outpatient departments and emergency rooms. In addition, many hospitals provide home health, skilled nursing facility, psychiatric, and rehabilitation services. To be eligible for Medicare payment, short-term general and specialty hospitals must meet the program’s conditions of participation and agree to accept Medicare rates as payment in full.

Medicare spending on hospitals

In fiscal year 2009, Medicare spent \$114 billion on fee-for-service (FFS) inpatient care and \$34 billion on FFS outpatient care at acute care hospitals (Table 3-1). Acute inpatient and outpatient services represented more than 90 percent of Medicare FFS spending on acute care hospitals. Aggregate FFS spending growth slowed in recent years due to a shift in enrollment from FFS Medicare to Medicare Advantage. Still, on a per capita basis, Medicare inpatient spending per FFS enrollee—including spending at critical access hospitals (CAHs)—grew, on average, by 3.6 percent per year from 2004 to 2009. During the same six-year period, growth in outpatient spending per FFS

enrollee averaged 10.6 percent per year. The higher growth in outpatient spending reflects an ongoing shift of services from an inpatient to an outpatient setting, changes in available technology, and increases in outpatient payments to small rural hospitals as they converted to CAH status over the six-year period.

Medicare’s payment systems for inpatient and outpatient services

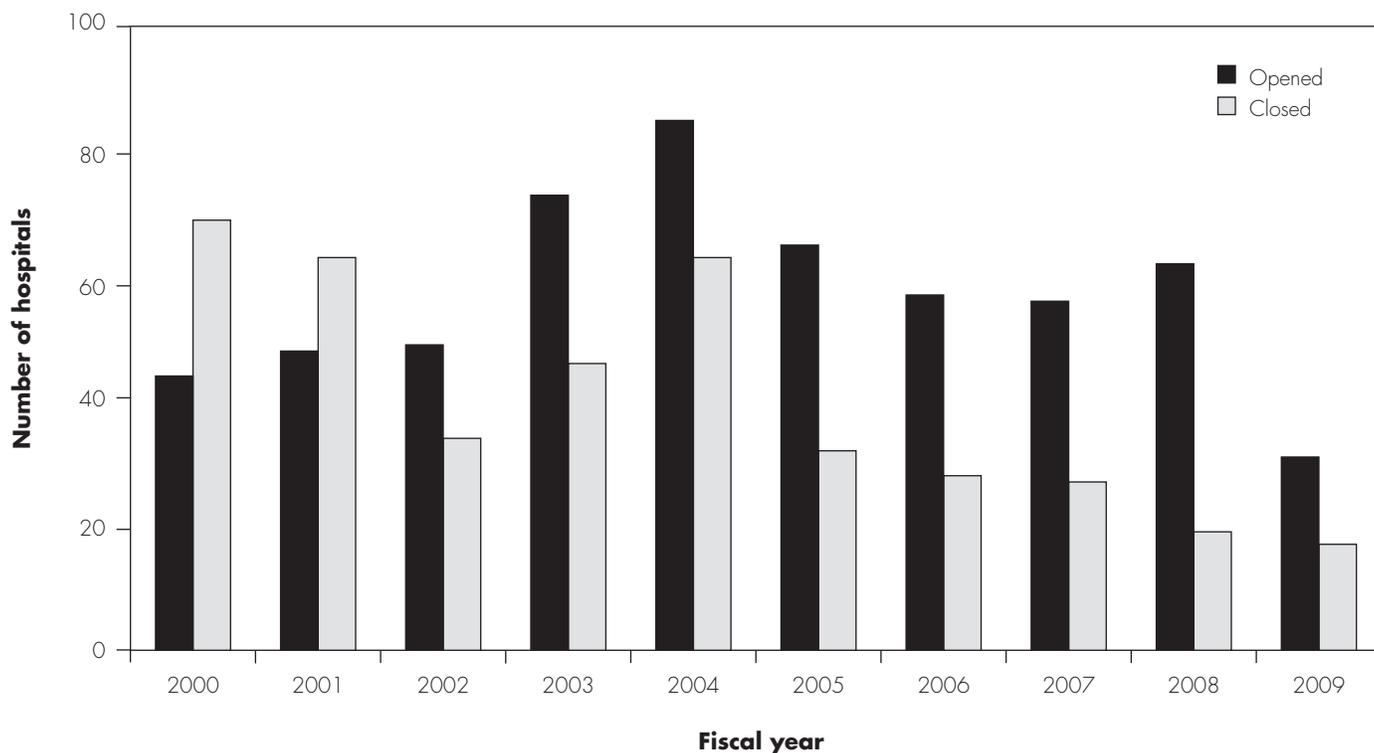
Medicare’s inpatient and outpatient prospective payment systems (PPSs) have a similar basic structure. Each has a base rate modified for differences in type of case or service as well as geographic differences in wages. However, in addition to different units of service, each PPS has a different set of payment adjustments.

Acute inpatient payment system

Medicare’s acute inpatient PPS (IPPS) pays hospitals a predetermined amount for most discharges. The payment rate is the product of a base payment rate and a relative weight that reflects the expected costliness of cases in a particular clinical category compared with the average of all cases. The labor-related portion of the payment rate is further adjusted by the hospital wage index to account for differences in area wages. Payment rates are updated annually.

**FIGURE
3-1**

More hospitals opened than closed each year from 2002 to 2009



Note: Hospitals refer to general short-term acute care hospitals.

Source: MedPAC analysis of CMS's Provider of Service file, IPPS Final Rule Impact file, and hospital cost reports.

In 2008, CMS implemented a new clinical categorization system called Medicare severity–diagnosis related groups (MS–DRGs). The MS–DRG system classifies patient cases in 1 of 747 groups, which reflect similar principal diagnoses, procedures, and severity levels. The new severity levels are determined according to whether patients have a complication or comorbidity (CC) associated with the base DRG (no CC, a nonmajor CC, or a major CC).

A more detailed description of the acute IPPS including payment adjustments can be found at: http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_hospital.pdf.

Hospital outpatient payment system

The outpatient PPS (OPPS) pays hospitals a predetermined amount per service. CMS assigns each outpatient service to 1 of approximately 800 ambulatory payment classification (APC) groups. Each APC has a relative weight based on its median cost of service compared with

the median cost of a midlevel clinic visit. A conversion factor translates relative weights into dollar payment amounts. A more detailed description of the OPSS can be found at: http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_OPD.pdf.

Are Medicare payments adequate in 2011?

To judge whether payments for the current year (2011) are adequate to cover the costs efficient hospitals incur, we examine several indicators of payment adequacy. We consider beneficiaries' access to care (as reflected in the supply of providers and in changes in the volume of services), changes in the quality of care, hospitals' access to capital, and the relationship of Medicare's payments to hospitals' costs for both average and relatively efficient hospitals. Most of our payment adequacy indicators for hospitals are positive, but profit margins on Medicare patients remain negative for 64 percent of hospitals.

**TABLE
3-2****The share of hospitals offering specialized services grew from 2004 to 2008**

Type of service	2004	2006	2008	Percentage point change 2004-2008
Translational	65%	72%	74%	9%
Robotic surgery	N/A	13	20	9*
Palliative care program	35	42	43	8
Adult interventional cardiac catheterization	35	39	43	8
Cardiac catheterization	43	48	50	7
Orthopedic	73	78	79	6
Neurological	51	55	57	6
Magnetic resonance imaging (MRI)	85	89	90	5
Open heart surgery	31	34	36	5
Case management	82	85	87	4
Cardiac rehabilitation	N/A	64	65	4*
Trauma center (level 1 to 3)	42	42	43	1
Urgent care center	35	34	34	-1

Note: N/A (not available). Data are for services available through the hospital or affiliated organization, which include critical access hospitals in addition to those covered by the acute inpatient and outpatient prospective payment systems. The American Hospital Association's annual survey has an 83 percent response rate overall, but response rates vary by line of service.

*Percentage point change is from 2005 to 2008, rather than from 2004 to 2008, because survey data were not available for 2004.

Source: American Hospital Association annual survey of hospitals.

Beneficiaries' access to care: Access remained positive as hospital capacity generally grew over the period reviewed

We assess beneficiaries' access to care by tracking the number of hospitals participating in the Medicare program, hospital employment, the proportion of hospitals offering certain specialty and outpatient services, and the volume of services received. In general, we find that hospitals' capacity to provide most services is increasing.

Capacity and supply of providers: Expanding number of hospitals and beds

For eight consecutive years (2002–2009), more Medicare-participating acute care hospitals opened than closed (Figure 3-1). In 2009, 31 acute care hospitals opened and 17 hospitals closed. Overall, approximately 4,800 acute care hospitals participated in Medicare; about 1,300 of them were CAHs (Flex Monitoring Team 2010).

The 31 hospitals that entered the program in 2009 had an average of 54 beds, adding about 1,600 acute care beds. The vast majority of these hospitals opened in urban areas, and just over half of them were for-profit hospitals. In contrast, the 17 hospitals that exited the program had an average of 190 beds, resulting in the closure of about 3,200 acute care beds. All closures were in urban locations,

and more than half were nonprofit hospitals. Despite the relatively larger size of the hospitals that closed in 2009, the aggregate number of acute care beds has increased in recent years due to the expansion of existing hospitals. From 2006 to 2008, the aggregate number of beds grew slightly, but the population of the country grew slightly faster, resulting in a slight decline in the number of beds per 1,000 residents—from 2.75 to 2.71. However, the beds per 1,000 residents ratio varies widely by state, from 5.5 in North Dakota to 1.8 in Washington.¹

Breadth of services: Specialized services continue to grow

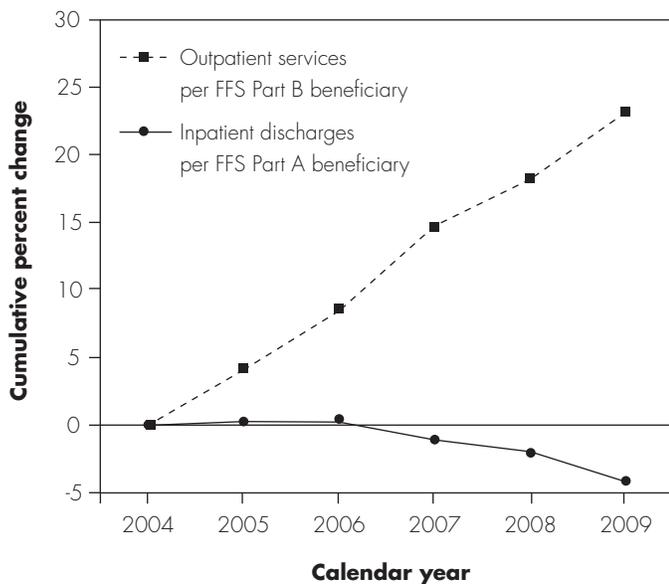
In recent years, short-term general acute care hospitals have continued to expand the scope of services they offer. Our analysis of more than 50 hospital services from 2004 to 2008 found that the share of hospitals and their affiliates providing each service increased for most services (Table 3-2).²

Volume of services: Outpatient grew, inpatient declined

To examine changes in volume of services, we used the number of discharges per FFS beneficiary as an indicator of inpatient volume and measured outpatient volume

**FIGURE
3-2**

Medicare outpatient services grew while hospital inpatient discharges per FFS enrollee declined from 2004 to 2009



Note: FFS (fee-for-service). Data are for short-term general and surgical hospitals, including critical access and children's hospitals.

Source: MedPAC analysis of MedPAR and hospital outpatient claims data from CMS.

by the number of services per FFS beneficiary. The measurement units differ because the IPPS generally pays for a bundle of services, while the OPSS generally pays for individual services.³ Although volume of services is not an ideal measure of access, increases in the volume of services provided per beneficiary suggest that access did not decline.

Outpatient and inpatient volume

From 2004 through 2009, the volume of Medicare outpatient services per FFS beneficiary increased at roughly a 4.3 percent annual rate for a cumulative increase of 23 percent over the six-year period (Figure 3-2). During the same period, Medicare inpatient discharge volume declined at roughly a 0.9 percent annual rate, and inpatient discharges per FFS Part A beneficiary decreased by about 4 percent from 2004 to 2009.

The rapid growth in outpatient services coupled with the decline in inpatient services is consistent with a shift in site of service from inpatient care units to outpatient departments. Many surgical procedures, such as

pacemaker implantation, that once were performed only as an inpatient service are now often done in an outpatient setting. In addition, from 2006 to 2008, the number of Medicare observation claims (an outpatient service) increased more than 26 percent per FFS Part B beneficiary. This change could in part reflect the substitution of observation stays for short (e.g., one day) inpatient stays.

The growth in number of outpatient services is not purely a shift in settings from inpatient to outpatient care. About a quarter of the increase in volume in outpatient departments is due to a shift in the site of physician office visits from freestanding offices to physician offices that are owned by the hospital and deemed part of the outpatient department. This situation is most likely due to hospitals' acquisition of physician practices. When patients visit a physician in a freestanding physician office, Medicare pays the physician based on the physician fee schedule that includes a professional component and a practice expense component. When patients visit a physician office that is part of a hospital's outpatient department, Medicare pays a facility fee to the hospital and a reduced fee for the physician's services. The combined fees paid for visits to hospital-based practices are often more than 50 percent greater than rates paid to freestanding practices. In 2009, we see that the volume of visits to the higher paid outpatient-based practices owned by hospitals grew by 9 percent, while visits to the lower paid freestanding practices grew by less than 1 percent.⁴ This finding suggests that the differentials in payment rates may be contributing to a shift in the site of service.

Other measures of hospital inpatient utilization suggest stability. The share of Medicare FFS Part A beneficiaries with at least one inpatient hospital stay in a given year declined just 1 percentage point, from 23 percent in 2004 to 22 percent in 2009. During this period, the average number of inpatient stays per hospitalized beneficiary in a given year remained constant at 1.7 inpatient admissions per year. While the average length of a Medicare inpatient stay declined slightly from 5.1 days in 2004 to 4.8 days in 2009, the average hospital occupancy rate (average percent of staffed acute care beds filled each day) was essentially unchanged at approximately 59 percent.⁵ However, occupancy rates vary widely among hospitals.

Hospitals' access to capital appears adequate

Access to capital allows hospitals to maintain and modernize their facilities. If hospitals were unable to access capital, it might in part reflect problems with the

adequacy of Medicare payments, as Medicare provides about 30 percent of hospital revenues. Access to capital appears adequate because levels of hospital bond issuances and investment in hospital construction remain high and industry consolidation is steady.

Through fall 2010, credit markets continued to improve, and interest rates on tax-exempt municipal bonds continued their steady two-year decline. As of October 2010, the interest rate on AA-rated tax-exempt 30-year hospital bonds was 4.7 percent. In October 2009, the interest rate for similarly classified bonds was approximately 5.1 percent, and it was approximately 7.3 percent in October 2008 (Cain Brothers 2010). The volume of hospital tax-exempt municipal bond issuances remained high in 2009 at nearly \$44 billion. This level was down from the decade high of \$51 billion in 2008 but similar to the level observed in 2007 and high relative to the rest of the decade.

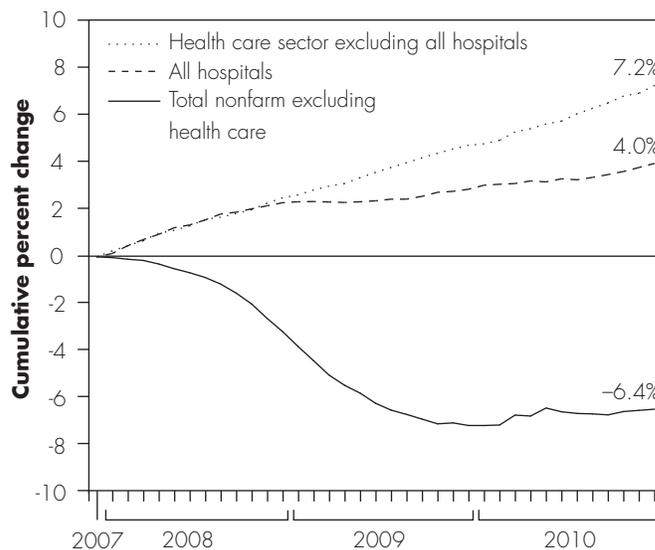
In response to the recession of the last two years, many hospitals initiated cost-control strategies and reduced their capital expenditures. The financial rating agencies agree that nonprofit hospitals began controlling costs in part in 2009 by reducing their capital expenditures and refraining from issuing debt (Fitch Ratings 2010, Moody's Investors Service 2010a, Moody's Investors Service 2010b).

Moody's and Fitch Ratings independently concluded that capital expenditures for their respective samples of nonprofit hospitals declined between 10 percent and 20 percent in fiscal year 2009, following increases in the previous two years. In a separate measure, Moody's concluded that in 2009 nonprofit hospitals spent slightly more than the amount necessary to maintain or replace their existing level of capacity. Specifically, Moody's found that median capital spending declined to 1.2 times depreciation expenses in 2009, which was down from 1.6 times depreciation in 2008. (If a hospital were to merely maintain its existing capacity in a given year, the ratio of capital expenses to depreciation would be approximately 1.0 times depreciation plus a small adjustment for changes in prices.) The Census Bureau reported that spending on hospital construction increased steadily from \$15 billion in 2000 to \$33 billion in 2007 and 2008 and then declined slightly to approximately \$32 billion in 2009.

The trend in consolidation of the hospital industry may be an indirect measure of hospitals' access to capital markets. The steady level of hospital merger and acquisition (M&A) activity over the last five years suggests that owning and operating hospitals remains

FIGURE 3-3

Hospital employment growth from December 2007 to December 2010



Note: Data are seasonally adjusted.

Source: Bureau of Labor Statistics, Current Employment Statistics data set.

an attractive use of capital. In 2009, the hospital sector saw 52 separate M&A deals; as a part of these deals, 80 individual hospitals were acquired. The number of M&A deals has remained relatively consistent at between 50 and 60 annually for the last five years. Data from the first eight months of 2010 suggest that the level of activity in 2010 was on par with 2009 levels. Through August 2010, 33 hospital M&A deals were completed involving 62 hospitals (Irving Levin Associates Inc. 2010b). In addition to hospitals and hospital systems acquiring hospital facilities in 2009, hospitals and systems also acquired other types of providers. Most of their acquisitions were physician group practices (Irving Levin Associates Inc. 2010a, PricewaterhouseCoopers' Health Research Institute 2010).⁶

Hospital employment grew in the last three years

Changes in hospital employment levels broadly reflect the capacity of the hospital sector to furnish care and may be a proxy for the sector's overall financial health (Figure 3-3). Over the past three years (December 2007 to December 2010), the Bureau of Labor Statistics reports that employment in hospitals increased 4.0 percent—to

more than 4.7 million employees—with all but five states showing increased hospital employment during the period. Occupational data from the last two years show that employment grew in both patient care and non-patient care occupations. Employment in computer science and math occupations increased 10 percent, pharmacists and management occupations both increased 9 percent, and imaging technicians increased 7 percent. In addition, the number of nurses increased 5 percent over the last two years, despite a decline in the number of licensed practical nurses and licensed vocational nurses. This trend may indicate that hospitals are moving toward hiring nurses with more advanced training.

Quality of care shows some improvement

Inpatient hospital quality-of-care measures are all either stable or showed improvement in recent years. From 2006 through 2009, risk-adjusted in-hospital and 30-day mortality rates declined for five major clinical conditions. Patient safety indicators did not improve significantly for the seven conditions we monitor, and readmission rates remained stable. Patient satisfaction has improved slightly in recent years. However, there is still room for improvement: in reducing readmissions, in eliminating errors that result in harm to patients, and in reducing rates of hospital-acquired conditions.

Our analysis of hospital quality as it relates to Medicare beneficiaries examines mortality rates for five major diagnoses. We look at the rates for deaths that occur during the hospital stay and within 30 days postdischarge after treatment of the targeted condition. We also examine trends in risk-adjusted rates of selected patient safety indicators, which measure the frequency of potentially preventable adverse events that can occur during an inpatient stay. The mortality measures are selected from the Agency for Healthcare Research and Quality (AHRQ) inpatient quality indicators (IQIs), and the adverse event measures are a subset of the AHRQ patient safety indicators (PSIs) (Agency for Healthcare Research and Quality 2007a, Agency for Healthcare Research and Quality 2007b). In our analysis, we use only the IQIs and PSIs that AHRQ has concluded have the strongest base of clinical and statistical evidence (Agency for Healthcare Research and Quality 2009a). We calculated the IQIs and PSIs using MedPAR inpatient hospital data files for 2006 through 2009 and version 4.1b of the AHRQ IQI and PSI software (Agency for Healthcare Research and Quality 2009b).

Mortality rates

From 2006 through 2009, risk-adjusted in-hospital and 30-day mortality rates declined by a statistically significant amount for all five conditions we measured: acute myocardial infarction, congestive heart failure, stroke, hip fracture, and pneumonia. This result extends a long trend of declining in-hospital and 30-day mortality. We also analyzed mortality rates for three complex and relatively infrequently performed surgical procedures—esophageal resection, pancreatic resection, and abdominal aortic aneurysm repair. While the risk-adjusted in-hospital and 30-day mortality rates declined in most instances for patients undergoing these procedures, none of the changes in these three rates was statistically significant because of the relatively small changes in the rates over time and the small number of cases with which to measure rates.

Patient safety indicators

Rates remained stable for 2006 through 2009 for the seven patient safety indicators we analyzed, including iatrogenic pneumothorax, postoperative pulmonary embolism or deep-vein thrombosis, and accidental puncture or laceration. The PSI rates are extremely small and must be interpreted with caution. Because they measure the rates of occurrence of very rare events, it is difficult to detect statistically significant changes in rates over time. In addition, AHRQ has noted that changes in provider coding practices over time and variations among providers in how patient safety events are captured and reported can affect the reported rates of the PSIs (Agency for Healthcare Research and Quality 2007a, Agency for Healthcare Research and Quality 2007b, Agency for Healthcare Research and Quality 2009a). Nonetheless, we monitor PSI rates because they represent injuries to patients or complications from clinical procedures that often can be avoided with adherence to known appropriate medical practices. CMS has recently begun requiring hospitals to identify conditions that are present on admission (POA), but data were not available for this analysis. Once we have several years of data with the new POA indicators, we should be able to better detect changes in patient safety. Starting in fiscal year 2015, the Secretary is mandated by the Patient Protection and Affordable Care Act of 2010 to reduce payments by 1 percent to IPPS hospitals that are in the top quartile, relative to the national average, of hospital-acquired conditions. (The list of conditions will be determined by the Secretary, presumably through future rule making.)

There is concern that hospitals have not made enough progress in improving patient safety (Landrigan et al. 2010). A recent report from the Department of Health and Human Services Office of Inspector General highlighted concerns that the overall incidence of patient safety errors and hospital-acquired conditions that result in harm to Medicare patients remains unacceptably high. According to clinical reviews of a nationally representative (though relatively small) random sample of Medicare beneficiaries discharged from acute care hospitals, the report found that an estimated 13.5 percent of hospitalized beneficiaries experienced serious adverse events during their hospital stays, including an estimated 1.5 percent of beneficiaries who experienced events that contributed to their deaths.⁷ Of all these events, physician reviewers estimated that almost half (44 percent) were clearly or likely preventable (Office of Inspector General 2010).

Patient experience measures

The Commission considers self-reported patient experience to be another important aspect of quality (Medicare Payment Advisory Commission 2005). AHRQ and CMS developed the Hospital Consumer Assessment of Healthcare Providers and Systems (H-CAHPS[®]) as a reliable and valid survey instrument to collect patients' assessments of health care services and providers (Elliott et al. 2010). The H-CAHPS survey captures patient experiences on measures such as quality of communication with doctors and nurses, responsiveness of hospital staff, pain management, communication about medicines, cleanliness and quietness of the hospital environment, and quality of information provided at discharge (Centers for Medicare & Medicaid Services 2010b). Beginning in July 2007, hospitals are required by law to submit H-CAHPS data from a sample of adult patients on a quarterly basis to avoid a 2 percentage point reduction in their IPPS annual payment update for the subsequent fiscal year. The quarterly H-CAHPS results for each applicable hospital are published on the Medicare Hospital Compare website.

A recent journal article analyzed the first two complete years of H-CAHPS data reported by hospitals to CMS and found small but significant improvements in almost all measures of patient experience examined (Elliott et al. 2010). The analysis found that participation in the public reporting of H-CAHPS results increased from 61 percent of all acute care hospitals to 84 percent between March 2008 and March 2009. Using H-CAHPS data from these two reporting periods, the analysis found small but statistically significant increases in patient

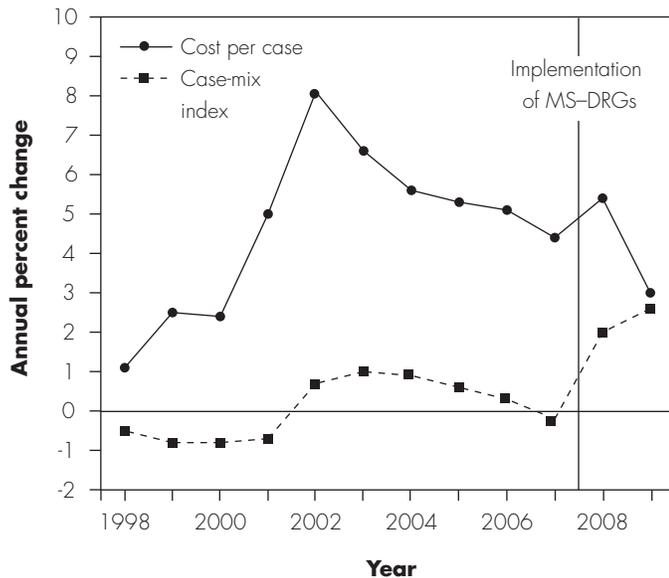
satisfaction for eight of the nine survey measures for the hospitals that submitted data in both periods. The one exception was doctor communication, in which there was no significant change. Improvement was greatest for discharge information, staff responsiveness, and quietness. The study also compared results for the almost 2,800 hospitals that submitted data for both periods with the almost 1,100 hospitals that began reporting data in the second period. On seven of the nine measures examined, the average March 2009 scores were higher for the newly reporting group of hospitals than for the original group of hospitals. The authors attribute this difference in part to the addition of a large number of smaller hospitals—which tend to have higher patient experience scores than larger hospitals—in the second reporting period.

Readmission rates

In 2010, CMS reported that 30-day readmission rates remained high at 18 percent for pneumonia, 20 percent for acute myocardial infarction, and 25 percent for heart failure (Department of Health and Human Services 2010). The Commission has previously discussed how readmissions rates should and can decline given better discharge planning and care transitions (Medicare Payment Advisory Commission 2007, Medicare Payment Advisory Commission 2008b). However, our analysis found no improvement in the potentially preventable 30-day readmission rates from 2006 through 2009.⁸ To stimulate greater improvement in readmission rates, the Congress enacted a financial penalty for hospitals with above-average risk-adjusted rates of readmissions for three conditions. CMS will begin to apply the penalty in fiscal year 2013. The literature suggests that financial incentives can induce changes in quality and that progress can be made on readmissions (Jha et al. 2010).

Relationship between hospital process measures and outcomes

Our analyses of hospital quality, both in the aggregate and in our “efficient provider” analysis, are based primarily on outcome measures such as mortality and readmission rates. The Commission also has supported the use of process measures to evaluate quality of care when there is evidence that the processes being measured increase the chances of positive patient outcomes, such as decreased mortality and readmission rates (Medicare Payment Advisory Commission 2005). Some of the literature examining the relationship between hospitals' performance on Medicare's publicly reported process measures and mortality rates—either across hospitals (Jha

**FIGURE
3-4****Comparison of growth in inpatient case mix and cost per case**

Note: MS-DRG (Medicare severity–diagnosis related group). Changes in case mix are based on national aggregate case-mix indexes calculated for the cohorts of hospitals included in the inpatient prospective payment system (IPPS) in each pair of years. Case-mix index is computed for each year’s inpatient claims using the Medicare grouper and weights in place for that year.

Source: MedPAC analysis of Medicare cost reports and annual MedPAR claims for IPPS hospitals for fiscal years 1997–2009 from CMS.

et al. 2007) or over time (Werner and Bradlow 2010)—has found that hospitals with better process measure performance tend to have better patient outcomes and vice versa. However, a growing body of literature suggests that at least some of the process measures currently used to measure hospital quality in Medicare capture only a small proportion of the variation in hospital mortality rates or have little or no association with mortality or readmission rates (Bradley et al. 2006, Fonarow et al. 2007, Fonarow and Peterson 2009, Nicholas et al. 2010, Ryan et al. 2009, Werner and Bradlow 2006).

A recent commentary by leading experts in hospital quality measurement suggested a set of criteria that CMS could apply to identify Medicare process measures that “focus explicitly on maximizing health benefits to patients”; CMS could replace those criteria that do not comply (Chassin et al. 2010). Outcome measures such as mortality and readmission rates enable us to compare quality across hospitals to define “efficient providers.” We also have recommended the use of outcome measures to compare quality across health plans in the Medicare

Advantage (MA) program and between MA and the traditional FFS Medicare program (Medicare Payment Advisory Commission 2010c).⁹ We will continue to review the evidence on the relationships between process and outcome measures and use the results to inform the evolution of measures for assessing the quality of hospital care provided to Medicare beneficiaries.

Value-based incentive payments

Starting in fiscal year 2013, a portion of hospitals’ payments (1 percent growing to 2 percent) will be withheld to fund incentives for higher quality care. Over the next two years, industry and government officials will need to work to develop and refine measures that accurately reflect value to the patient. Applying a final set of measures in 2013 may redistribute payments significantly among hospitals. In 2008, the Commission suggested measures that should be included in the hospital value-based purchasing (VBP) program—including a robust set of patient safety measures—and risk-adjusted outcome measures, such as mortality rates, and efficiency measures (Medicare Payment Advisory Commission 2008a). The measures used in the VBP program, and the weighting that different measure domains contribute to a hospital’s performance score, should evolve to reflect the program’s quality improvement priorities. This progression would involve giving more weight to patient safety and outcome measures. By tying quality metrics to Medicare payments, incentives to improve care processes would be strengthened.

Medicare payments and providers’ costs

In assessing payment adequacy, the Commission also considers the estimated relationship between Medicare payments for and hospitals’ costs of furnishing care to Medicare patients. We assess the adequacy of Medicare payments for the hospital as a whole, and thus our primary indicator of the relationship between payments and costs is the overall Medicare margin. This margin includes all payments and Medicare-allowable costs attributable to Medicare patients for the six largest services that hospitals provide plus graduate medical education payments and costs.

We report the overall margin on services to Medicare patients across service lines because no hospital service is a purely independent business. For example, operating a skilled nursing facility (SNF) can improve the profitability of acute care services when an in-hospital SNF allows hospitals to safely discharge patients sooner from their

acute care beds. In addition, there are potential cost allocation issues. For example, under current cost-accounting rules hospitals may allocate too much of their administrative costs to a home health subsidiary, which can distort the apparent profit margins of both the home health agency and the hospital. Only by combining data for all major services can we estimate Medicare margins without the influence of how overhead costs are allocated.

The hospital update recommendation in this chapter is intended to apply to hospital inpatient and outpatient payments. Payments for the other distinct units of the hospital, such as SNFs, are addressed by our update recommendations for those payment systems, which apply to both hospital-based and freestanding providers.

Documentation and coding improvements contributed to a rise in payments per discharge in 2009

Growth in Medicare hospital payments per discharge under the IPSS depends primarily on the annual payment updates and changes in reported case mix. In 2009, IPSS hospitals received a 3.6 percent payment update for operating rates and a 0.9 percent update for capital rates. These updates were reduced by 0.9 percentage point to offset part of the expected increase in payments due to hospitals' documentation and coding improvements (DCI) in response to the second year of implementation of MS-DRGs. The net effect was that hospitals received an average payment update of 2.5 percent in 2009.

What was extraordinary in 2008 and 2009 was the rapid increase in the reported case-mix index of 2 percent in 2008 and 2.6 percent in 2009—after implementation of the new MS-DRG system in 2008 (Figure 3-4). This increase followed a decade in which the case-mix index declined in 5 of the 10 years and never grew by more than 1 percent in any year.

Analyses by both CMS and the Commission have concluded that the increases in case mix reported in both 2008 and 2009 resulted from hospitals' DCI in response to the adoption of MS-DRGs in 2008 (Medicare Payment Advisory Commission 2010a). Before the adoption of MS-DRGs in 2008, annual case-mix increases ranged from -0.8 percent to 1.0 percent and on average reflected a 0.1 percent year-to-year change. With the introduction of MS-DRGs, however, reported case mix jumped substantially, increasing by 2.0 percent in 2008 and by 2.6 percent in 2009. Our analysis suggests that the jump in reported case mix reflected improvements in coding and

**TABLE
3-3**

Cost growth slowed in 2009

Cost measure	Annual cost growth			
	2006	2007	2008	2009
Inpatient costs per discharge	5.1%	4.2%	5.5%	3.0%
Outpatient costs per service	2.6	5.6	5.1	4.8
Weighted average	4.6	4.5	5.4	3.3
Input price inflation	4.2	3.4	4.3	2.6

Note: Cost growth numbers are not adjusted for reported changes in case mix. Analysis excludes critical access hospitals and Maryland hospitals. The weighted average is based on hospitals' inpatient and outpatient Medicare costs.

Source: MedPAC analysis of Medicare Cost Report and claims files from CMS.

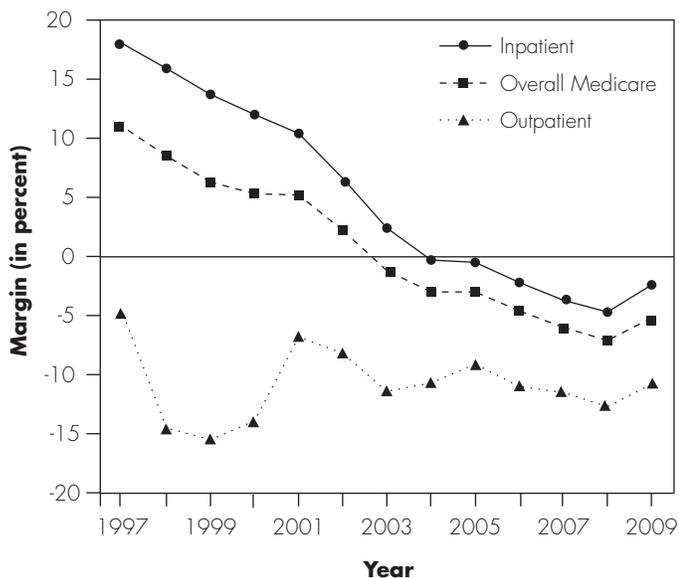
not an actual shift toward patients whose care required greater resources. This explanation shows how hospitals could record high case-mix growth in 2009 without a corresponding increase in cost growth. In fact, the rate of cost growth declined in 2009 for the reasons discussed below.

Hospital cost growth slowed in 2009 as hospital input prices rose at their slowest rate of increase in over a decade

A combination of economic pressure and lower input price inflation led to lower cost growth in 2009. Medicare inpatient costs per discharge grew just 3.0 percent in 2009, the slowest rate of increase since 2000 (Table 3-3). The lower cost growth in 2009 was partly due to lower input price inflation facing hospitals, reflected in the increase of 2.6 percent in the CMS hospital market basket index in 2009, down from 4.3 percent in 2008. In contrast, outpatient costs per service grew by 4.8 percent in 2009, faster than the increase in inpatient costs. Much of the high growth in outpatient costs may be attributable to increases in service mix in the outpatient setting, which grew 2.5 percent in 2009.

Trend in overall Medicare margin

We define Medicare profit margins as Medicare payments minus the allowable costs of treating Medicare patients, all divided by Medicare payments. In analyzing hospital margins, we exclude CAHs, which are paid based on their incurred costs, and hospitals located in Maryland, which are excluded from the IPSS and paid under a statewide PPS. The overall Medicare margin has trended

**FIGURE
3-5****Hospital Medicare margins:
inpatient, outpatient, and overall**

Note: A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. Analysis excludes critical access and Maryland hospitals. Medicare inpatient margins include services covered by the acute inpatient prospective payment system. Overall Medicare margin includes acute inpatient, outpatient, hospital-based home health and skilled nursing facility (including swing bed), and inpatient psychiatric and rehabilitation services, plus graduate medical education.

Source: MedPAC analysis of Medicare Cost Report file from CMS.

downward from 1997 through 2008 and has been negative since 2003 (Figure 3-5).¹⁰ From 2008 to 2009, however, the overall Medicare margin went up from -7.1 percent to -5.2 percent. The overall margin is dominated by inpatient and outpatient services, which represent 92 percent of hospitals' Medicare revenues. Both inpatient and outpatient margins improved in 2009, although both remain negative. Between 2008 and 2009, the margin on Medicare inpatient services rose from -4.7 percent to -2.4 percent, and the margin on Medicare outpatient services went up from -12.7 percent to -10.8 percent. The increase in margins is primarily due to increases in reported case mix. Cost growth, however, continues to be marginally higher than underlying input price inflation as measured by the hospital market basket index.¹¹

2009 Medicare margins by hospital type

We examined further breakouts of the overall Medicare margin by hospital type. In 2009, the overall Medicare

margin for rural hospitals was higher (less negative) than the margin for urban hospitals (Table 3-4). Rural hospital margins, once below urban hospital margins, are now higher for several reasons. First, many small, low-margin rural hospitals are no longer included in the analysis because they converted to CAH status, under which they are paid on the basis of costs plus 1 percent for inpatient and outpatient services. If we include CAHs in our overall margin calculation, the overall Medicare margin for rural hospitals in 2009 would be 1.6 percentage points higher, or -3.3 percent. Second, payments to a large share of rural hospitals—sole community hospitals and small rural Medicare-dependent hospitals—are based at least partially on their updated historic costs. Changes made to Medicare disproportionate share payments have also increased payments to many rural hospitals.

Overall Medicare margins at for-profit hospitals continued to remain above those at nonprofit hospitals. In 2009, for-profit hospitals' Medicare margins were -0.1 percent compared with -6.3 percent at nonprofit hospitals. For-profit hospitals have had slower growth in costs per discharge than nonprofit hospitals for the past three years.

The overall Medicare margin for major teaching hospitals fell below zero (-1.7 percent) for the first time in 2008. In 2009, major teaching hospitals saw both inpatient and outpatient Medicare margins increase, but the overall margin remained slightly negative, at -0.6 percent. Major teaching hospitals have higher overall Medicare margins than the average IPPS hospital in large part due to the extra inpatient payments they receive through the indirect medical education and disproportionate share adjustments in the IPPS. Commission analysis shows that both adjustments provide payments substantially larger than the estimated effects that teaching intensity and service to low-income patients have on hospitals' average costs per discharge. Non-teaching hospitals, most of which are in urban areas, had the lowest Medicare margins of any hospital group. In June 2010, the Commission made recommendations to use teaching hospital payments as incentives to train physicians for the skill sets needed by future Medicare beneficiaries (Medicare Payment Advisory Commission 2010b).

Historically, other hospital-based units—SNFs, home health agencies, inpatient rehabilitation units, and inpatient psychiatric units—have lower Medicare margins than their freestanding counterparts. However, hospitals with these units have higher overall Medicare margins than hospitals

without them. For example, in 2009, the overall Medicare margin for hospitals with a SNF unit was -4.6 percent compared with -5.3 percent for hospitals without a SNF unit—despite a -66 percent margin for hospital-based SNFs. Similarly, the overall margin for hospitals with an inpatient rehabilitation unit was -4.5 percent compared with -5.7 percent for hospitals that did not have such a unit. In aggregate, hospitals with some type of post-acute care unit had higher overall Medicare margins than hospitals that had no units, -4.8 percent compared with -7.4 percent. This finding could be due to patients being discharged earlier where hospital-based post-acute care services are available.

Projected margins under current 2011 payment policies

Payment growth will be slower in 2011 than in earlier years As discussed above, inpatient payments rose in 2008 and 2009 due to coding improvements. CMS is required to recover those overpayments by adjusting payments downward in 2011 and 2012. The downward adjustment is -2.9 percent in 2011, which will result in lower overall payment rates in 2011. The -2.9 percent adjustment is expected to continue until the end of fiscal year 2012.

Hospital cost growth appears steady in 2010 and 2011

As expected, due to financial pressure from the economy and investment losses, hospital cost growth slowed between 2008 and 2009 from 5.5 percent to 3 percent per discharge. While 2010 Medicare cost report data are not yet available, we have partial-year data from the Census Bureau through June 2010 and from certain hospital systems with publicly traded stocks and bonds for the nine months ending in September 2010.¹² These data sources suggest that cost growth per discharge remained in the 2 percent to 4 percent range during the first nine months of 2010. Looking forward to 2011, we expect 3 percent to 4 percent cost growth as input prices rise by a forecasted 2.6 percent and hospitals increase their information technology spending to qualify for substantial payments for adopting meaningful electronic medical records (see text box, p. 52–53).

We expect the net effect of low growth in inpatient payment rates in 2011, health information technology payments, and cost growth of 3 percent to 4 percent will be a decline from 2008 to 2009 in hospital profit margins from -5.2 percent to roughly -7 percent. That is, profit margins will revert to where they were in 2007.

**TABLE
3-4**

Overall Medicare margins by hospital group

Hospital group	2005	2006	2007	2008	2009
All hospitals	-3.1%	-4.7%	-6.0%	-7.1%	-5.2%
Urban	-3.1	-4.7	-6.0	-7.2	-5.2
Rural					
Excluding CAHs	-2.8	-4.5	-5.3	-6.3	-4.9
Including CAHs	-2.4	-3.3	-3.9	-4.4	-3.3
Nonprofit	-3.7	-5.3	-6.7	-8.1	-6.3
For profit	-1.4	-2.5	-3.5	-2.8	-0.1
Government*	N/A	N/A	N/A	N/A	N/A
Major teaching	4.0	2.3	0.2	-1.7	-0.6
Other teaching	-3.6	-5.2	-6.9	-7.4	-5.2
Nonteaching	-6.6	-8.2	-9.1	-10.0	-7.9

Note: CAH (critical access hospital), N/A (not available). Data are for all hospitals covered by the Medicare acute inpatient prospective payment system in 2009. A margin is calculated as payments minus costs, divided by payments; margins are based on Medicare-allowable costs. Overall Medicare margin covers acute inpatient, outpatient, hospital-based skilled nursing facility (including swing bed), home health, and inpatient psychiatric and rehabilitation services, plus graduate medical education. *Margins for government-owned providers are not shown. They operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of Medicare Cost Report file, MedPAR, and impact file from CMS.

Cycles of private-payer profits, financial pressure, and cost growth

The level of hospitals' cost growth has cycled up and down through different time periods (Figure 3-6, p. 54). During the first time period (1986–1992), most insurers still paid hospitals on the basis of their charges, with little price negotiation or selective contracting. With limited pressure from private payers, hospital margins on private-payer business increased rapidly. In the second cycle (1993–1999), HMOs and other private insurers began to negotiate more assertively with hospitals, and most insurers switched to paying for inpatient services on the basis of DRGs or flat per diem amounts for broad types of services. As a result, hospitals' payment-to-cost ratio for private payers declined by 16 percentage points. Because managed care restrained private-payer payment rates, hospitals were under pressure to constrain their costs and the rate of cost growth was below input price inflation from 1994 through 2000.

Policy changes between 2009 and 2012 increase some payments and decrease others

A number of payment policy changes in recent years affect our projection of 2011 hospital margins as well as payments to hospitals in 2012.

Inpatient payments

CMS and the Congress made a variety of policy changes affecting the acute inpatient prospective payment system (IPPS) for fiscal year (FY) 2010 and FY 2011. CMS completed its implementation of Medicare severity–diagnosis related groups (MS–DRGs) and cost-based relative weights in FY 2009. CMS and the Commission found that hospitals responded to the financial incentives of the MS–DRG system by improving medical record documentation and diagnosis coding, which resulted in assignment of cases to higher weighted MS–DRGs in 2009. Because this change in assignments increased payments without an accompanying increase in resources used, it resulted in an unintended increase in payments. As a part of the TMA, Abstinence Education, and QI Programs Extension Act of 2007 (TMA), the Congress mandated payment reductions of 0.6 percent in 2008 and an additional 0.9 percent in 2009 to offset the effects of documentation and coding improvements (DCI) projected by the CMS Office of the Actuary. To the extent that the TMA reductions differ from the actual effects of hospitals' coding improvements, the Secretary of the Department of Health and Human Services is required by law to adjust hospital payments in 2010, 2011, and 2012 to recover any overpayments that occurred in 2008 and 2009. The Secretary is also required to adjust payment rates further to prevent overpayments from continuing. Analyses by both CMS and the Commission found that hospitals' DCI increased payments by 2.5 percent in 2008 and by a cumulative 5.4 percent by 2009. After accounting for the adjustments mandated in the TMA, the net overpayments to hospitals were 1.9 percent in 2008 and 3.9 percent in 2009 (more DCI in 2009), or 5.8 percent in total. In the FY 2011 IPPS final rule, CMS decided to make a temporary adjustment of –2.9 percent to FY 2011 payments to recover half of the net overpayments that occurred in FY 2008 and FY

2009. CMS also suggested in the 2011 final rule that it would consider a similar adjustment for FY 2012 to recover the remaining overpayments by the end of 2012, as required by law. CMS has stated it needs to reduce payments by 3.9 percent in future years to prevent further overpayments due to DCI, but it has not stated when or how rapidly it will take the 3.9 percent reduction.

The Patient Protection and Affordable Care Act of 2010 (PPACA) mandated six policy changes that affect inpatient payments for FY 2010 and FY 2011. First, the Congress mandated a 0.25 percentage point reduction in the payment update for the second half of FY 2010 and for all of FY 2011. For example, the forecasted 2.6 percent market basket increase for FY 2011 was partially offset by the 0.25 percentage point adjustment, resulting in a payment update of 2.35 percent (not including the temporary –2.9 percent DCI recovery adjustment). The remaining PPACA policy changes are likely to be budget neutral or to increase hospital payments. PPACA temporarily expanded (through 2012) the policy providing additional payments to hospitals that have a low volume of Medicare (not all payers) inpatient discharges and are 15 miles or more from the nearest PPS hospital. We estimate that this policy change will add approximately \$380 million in new payments, mainly to rural hospitals, in FY 2011. The law also mandated a new two-year program to provide additional payments to hospitals located in counties with relatively low levels of Medicare spending. Hospitals located in low-spending counties will receive a share of \$150 million reserved for this policy in FY 2011 and \$250 million in 2012.¹³ PPACA also extended for all of FY 2010 the provision in Section 508 of the Medicare Prescription Drug, Improvement, and Modernization Act of 2003, which gave eligible hospitals an opportunity for a one-time reclassification to a different labor market and allowed this change to increase their payments. CMS estimated that the Section 508 extension will increase payments in FY 2010 by \$200 million. Finally, PPACA mandated two policy changes related

(continued next page)

Policy changes between 2009 and 2012 increase some payments and decrease others (cont.)

to hospital wage indexes. One is a frontier wage index floor: Hospitals in Montana, North Dakota, Nevada, South Dakota, and Wyoming will maintain a wage index equal to no less than 1.0. For the 51 urban and rural hospitals affected by this policy, CMS estimated payments will increase \$48 million in aggregate. The other wage-related change is that beginning in FY 2011 a rural-floor budget-neutrality adjustment will be applied on a national level, rather than on a state level. CMS estimated that this policy change will increase payments for urban hospitals whose wage index is raised up to the state's rural level and will decrease payments for other hospitals (including all rural hospitals), which pay for the floor through a budget-neutrality adjustment.

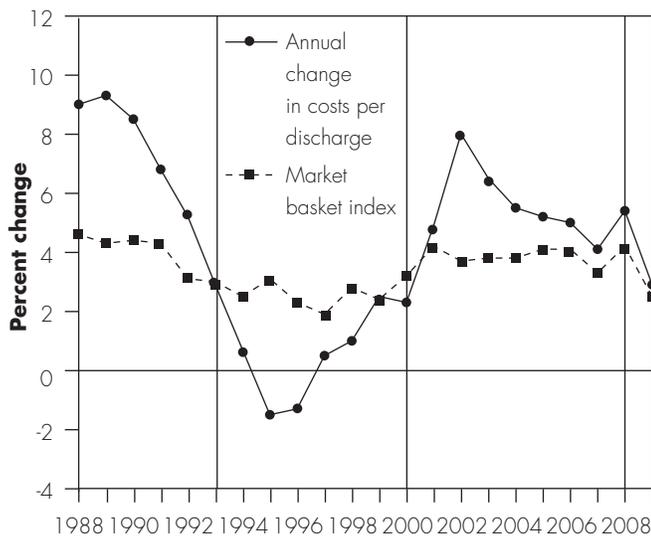
Outpatient payments

Rural hospitals with 100 or fewer beds receive hold-harmless outpatient payments through 2011. Payment rates for these hospitals were based on the higher of current outpatient PPS rates or the hospital's historic payment-to-cost ratio applied to its current reported outpatient costs. For example, if a hospital received 95 percent of its costs for care before implementation of the outpatient PPS, it would receive hold-harmless payments sufficient to bring its total payments for outpatient services up to 95 percent of its current costs if its outpatient PPS payments were lower. Starting in January 2012, these adjustments are set to expire, which will result in a decline in outpatient payments for some rural hospitals.

Health information technology

The American Recovery and Reinvestment Act of 2009 provided payment incentives to encourage hospitals and other providers to adopt electronic health record (EHR) technology. These health information technology (HIT) payments will begin in FY 2011 and continue each year until FY 2017. Under the law, a hospital will receive an incentive payment for each year it is deemed a meaningful user of EHRs—based on meeting specified criteria concerning the capabilities of its EHR system released in CMS's Medicare and Medicaid EHR Incentive Program Final

Rule (Centers for Medicare & Medicaid Services 2010a).¹⁴ The hospital HIT incentive payment will equal the sum of an initial payment amount per hospital (\$2 million base amount) plus a discharge-related amount of \$200 per patient discharge for all discharges between the 1,150th and 23,000th discharge, both multiplied by the hospital's share of Medicare days. Therefore, hospitals' EHR incentive payments will vary with the shares that their Medicare inpatient admissions represent of their total admissions. According to this mandated formula and assumptions we have made about the share of hospitals that will meet the EHR meaningful use criteria by the end of FY 2011, we estimate that hospitals paid under the IPPS will receive roughly \$3 billion in additional payments by the end of FY 2011 from the HIT incentive program. We estimate that the average large hospital (more than 400 beds) will receive payments of \$2.7 million in 2011 and the average smaller hospital will receive payments of about \$1.6 million if it meets the meaningful use criteria. Our assumptions concerning the share of hospitals that will meet the meaningful use criteria for the first fiscal year of the program were derived from a variety of sources. These sources include a recent news release from the Department of Health and Human Services, which stated that a survey conducted by the American Hospital Association in 2010 projected that 65 percent of hospitals will enroll in the HIT incentive program by the end of FY 2012. In addition, a survey conducted by the College of Healthcare Information Management Executives in 2010 found that 89 percent of the hospital chief information officers they surveyed believe their hospital will meet the meaningful use criteria by the end of FY 2012 and that 20 percent of respondents believe their chances of meeting the criteria were greatly improved by the changes CMS made in its final regulations on this subject (College of Healthcare Information Management Executives 2010a, College of Healthcare Information Management Executives 2010b, Department of Health and Human Services 2011, Healthcare Information and Management Systems Society 2010). The law also stipulates that, in FY 2015, hospitals that fail to meet the meaningful use criteria will be penalized through the IPPS. ■

**FIGURE
3-6****Cost growth falls in 2009
as financial pressure increases**

Note: The market basket index measures annual changes in the prices of the goods and services hospitals use to deliver care. Cost growth refers to annual change in inpatient allowable costs per discharge.

Source: Medicare analysis of Medicare Cost Report files from CMS and CMS final rules for the inpatient prospective payment system in years 1988 through 2009.

However, by 2000, hospitals had regained the upper hand in price negotiations because of hospital consolidations and consumer backlash against managed care. In the third cycle (2000–2007), private-payer payment rates rose rapidly and hospitals’ payment-to-cost ratio for private payers increased more than 16 percentage points. Due to high private-payer payments, all-payer margins for hospitals reached 6.0 percent in 2007, the highest level recorded since 1997. As expected, cost growth was high in 2008 (5.5 percent) as many hospitals started the year with little pressure to constrain costs. As we have discussed in the past, when profits on privately insured patients are high, hospitals face less pressure to constrain costs (Medicare Payment Advisory Commission 2009, Stensland et al. 2010).

However, the picture changed rapidly in September 2008 with the collapse of the bond and stock markets. Total all-payer margins in 2008 fell to 1.8 percent, the lowest level in more than two decades. Operating margins fell, investment income declined dramatically, some defined benefit pension plans needed larger contributions from their hospital sponsors, and there was a great deal of uncertainty about the future of the economy. This situation

created financial pressure to constrain costs in 2009. In response, hospitals pulled back from the high levels of capital expenditures and employment growth seen in 2007 and 2008 to more moderate levels of capital expenditures and employment growth. The result was the drop in cost growth between 2008 and 2009 from 5.5 percent to a more moderate 3.0 percent. Looking forward, if hospitals’ financial condition continues to improve and their expectation of future revenue growth does not decline, we expect to see increased cost growth in 2011.

Hospital-level financial pressure and hospital costs

The effect of financial pressure on hospitals’ costs is not only evident over time; it is also evident when comparing hospitals facing different levels of financial pressure to constrain costs. Some hospitals have strong profits on non-Medicare services and investments and are under little pressure to constrain their costs. Other hospitals, with thin profits on non-Medicare services, face overall losses (and possibly closure) if they do not constrain costs and generate profits on Medicare patients. To determine the effect of financial pressure on costs, we grouped hospitals into three levels of financial pressure from private payers: high, medium, and low. We then tested whether hospitals under high levels of financial pressure from 2004 to 2008 ended up with lower Medicare standardized inpatient costs per discharge in 2009 than hospitals under medium and low levels of financial pressure during the same six-year period.

We defined high-pressure hospitals as those that met two criteria:

- Median non-Medicare profit margin was 1 percent or less from 2004 through 2008. Non-Medicare margins reflect the sum of net profit (or loss) on private-payer, Medicaid, self-pay, and charity cases, as well as nonpatient revenues and costs.
- Net worth would have grown by less than 1 percent per year from 2004 through 2008 if the hospital’s Medicare profits had been zero. This condition would indicate that the hospital depended on Medicare profits to grow its net worth.

We defined low-pressure hospitals as those that could grow their net worth even if they suffered Medicare losses. Low-pressure hospitals met the following two criteria:

- Median non-Medicare margin was greater than 5 percent from 2004 through 2008.

**TABLE
3-5**

High financial pressure leads hospitals to constrain costs

Level of financial pressure 2004 to 2008

	High pressure (non-Medicare margin ≤1%)	Medium pressure	Low pressure (non-Medicare margin >5%)
2009 financial characteristics (medians)			
Non-Medicare margin (private, Medicaid, uninsured)	-3.8%	2.7%	10.7%
Overall 2009 Medicare margin	4.7	-1.1	-10.2
Total (all-payer margin)	-0.7	1.7	5.4
Standardized cost per Medicare discharge (as a share of the national median)			
All (for-profit and nonprofit) hospitals	92%	96%	104%
Nonprofit hospital	92	96	105
For-profit hospital	92	92	99
Growth in cost per discharge 2006 to 2009	4.3	4.2	4.6
Patient characteristics (2009 medians)			
Total hospital discharges	5,113	8,183	7,292
Medicare FFS share of inpatient days	43%	42%	43%
Medicaid share of inpatient days	12	11	10
Medicare case-mix index	1.33	1.45	1.45
Hospital characteristics			
Number of:			
All hospitals	756	390	1,747
Rural hospitals	242	104	489
For-profit hospitals	205	50	371
Major teaching hospitals	112	38	92
Share of:			
All hospitals	26%	13%	60%
Rural hospitals	29	12	59
For-profit hospitals	33	8	59
Major teaching hospitals	46	16	38

Note: FFS (fee-for-service). Standardized costs are adjusted for case mix, wage index, outliers, transfer cases, interest expense, and the empirically estimated effect of teaching and low-income Medicare patients on costs per discharge.

Source: MedPAC analysis of Medicare Cost Report and claims files from CMS available as of October 2010.

- Net worth would have grown by more than 1 percent per year if the hospital's Medicare profits were zero. This condition would indicate that the hospital did not depend on Medicare profits to grow its net worth.

Findings on financial pressure We found that hospitals under high financial pressure from 2004 through 2008 restrained their Medicare standardized costs per discharge in 2009 to 92 percent of the national median,

while hospitals under low financial pressure had median standardized costs in 2009 equal to 104 percent of the national median (Table 3-5). Lower costs resulted in a higher median Medicare margin of 4.7 percent for those under pressure.

Nonprofit hospitals under low pressure had median Medicare standardized costs of 105 percent of the national median, while for-profit hospitals under low financial

**TABLE
3-6**

Performance of relatively efficient hospitals

	Type of hospital	
	Relatively efficient during 2006–2008	Other hospitals
Number of hospitals	219	1,952
Share of hospitals	10%	90%
Relative historical performance, 2006–2008		
Risk-adjusted:		
Composite 30-day mortality (AHRQ)	82%	104%
Readmission rates	97	101
Standardized cost per discharge, 2005–2008	91	102
Relative mortality metrics, 2009		
Risk-adjusted:		
Composite 30-day mortality (AHRQ)	85	104
30-day AMI mortality (CMS)*	97	101
30-day CHF mortality (CMS)*	96	101
30-day pneumonia mortality (CMS)*	92	101
Relative readmission metrics, 2009		
Risk-adjusted:		
Composite 30-day readmission (3M)	96	101
30-day AMI readmissions (CMS)*	99	100
30-day CHF readmissions (CMS)*	96	100
30-day pneumonia readmissions (CMS)*	100	100
Relative percent of patients highly satisfied, 2009 (H-CAHPS®)	103	100
Relative standardized Medicare costs per discharge, 2009	90	102
Median:		
Overall Medicare margin, 2009	3%	–6%
Non-Medicare margin, 2009	3	6
Total (all payer) margin, 2009	3	3

Note: AHRQ (Agency for Healthcare Research and Quality), AMI (acute myocardial infarction), CHF (congestive heart failure), H-CAHPS® (Hospital Consumer Assessment of Healthcare Providers and Systems). Relatives are the median for the group as a percentage of the median of all hospitals. Per case costs are standardized for area wage rates, case-mix severity, prevalence of outlier and transfer cases, interest expense, low-income shares, and teaching intensity. Composite mortality was computed using the AHRQ methodology to compute risk-adjusted mortality for six conditions (AMI, CHF, pneumonia, gastrointestinal hemorrhage, stroke, and hip fracture). We then weighted the scores for each type of discharge by the share of discharges in that particular hospital. We removed hospitals with low Medicaid patient loads (the bottom 10 percent of hospitals) and hospitals in markets with high service use (top 10 percent of hospitals) due to concerns that socioeconomic conditions and aggressive treatment patterns can influence unit costs and outcomes.
* CMS computes mortality and readmission rates using three years of data (2007 to 2009).

Source: MedPAC analysis of impact file, MedPAR, and Medicare cost report data from CMS, and CMS Hospital Compare data.

pressure had standardized costs equal to 99 percent of the national median. This finding suggests that for-profit hospitals constrain costs more than nonprofits when they are under little financial pressure to do so. Put differently, if both types of hospitals receive high payment rates from private payers, the higher revenues tend to be reflected as higher costs in nonprofit hospitals, but in for-profit

hospitals a larger share of the revenue is retained as profit for shareholders.

Hospitals under high financial pressure tend to be those with smaller operations, a lower case-mix index, and a larger share of patients covered by Medicaid, which can force hospitals to constrain costs. As we found last year, the set of hospitals under a high level of financial pressure

includes hospitals in different locations (rural and urban) and teaching as well as nonteaching hospitals. Comparing this year's findings about hospitals under financial pressure with the last three years' work, we find consistent results—hospitals under financial pressure tend to have lower costs.

One limitation of this method is that it captures only the long-term effects of pressure over five years. Therefore, the one-year increase in financial pressure in 2008 did not have much effect on this cross-sectional analysis. However, our longitudinal analysis of cost growth clearly shows the effect of the financial crisis on hospital cost growth in 2009.

Payments and costs of efficient providers

The goal of our analysis of relatively efficient hospitals is to examine payment adequacy for the group of hospitals that perform relatively well on both cost and quality metrics while serving a broad spectrum of patients. The variables we use to identify relatively efficient hospitals are hospital-level mortality, readmission, and inpatient cost metrics; providers' payer mix; and the annual level of total FFS Medicare service use per capita in the county where the hospital is located. As data and risk-adjustment methodologies improve, our measures of efficiency will continue to evolve.

Ideally, we would limit our set of efficient hospitals to those that not only had high in-hospital quality and low unit costs but also helped their patients transition to good post-acute care outcomes and helped restrain overall costs to the Medicare system during the year. However, we are limited to using county-level annual Medicare service use as a second-best proxy for how aggressive a hospital is in generating admissions. To avoid having hospitals from high-use systems in our analysis, we removed hospitals from the population studied if they were located in counties in the top 10 percent of annual Medicare FFS service use per FFS beneficiary.¹⁵ This method reduces the chance that a hospital will appear to have low unit costs of service simply because it is located in an area with a high volume of admissions of low-cost patients that could be treated on an outpatient basis. To allay concerns that our method does not account for the effect that low-income patients could have on the results, we further restricted the population of hospitals that we evaluated for efficiency by removing the 10 percent of hospitals with the smallest shares of Medicaid patients. This process reduces the likelihood that hospitals in our efficient group got there simply because they had a favorable selection of patients.

Our goal in this screening process is to improve our ability to identify hospitals that can provide good outcomes at a reasonable cost while serving a broad spectrum of patients (including Medicaid) without driving up the overall volume of hospital and nonhospital services provided.

Categorizing hospitals as relatively efficient We assigned hospitals to the relatively efficient group or the control group according to each hospital's performance on a set of risk-adjusted cost and quality metrics during the period 2006 through 2008. We then examined the performance of the two hospital groups during fiscal year 2009.

Hospitals were identified as relatively efficient if they met the four criteria every year of the 2006 to 2008 period:

- Risk-adjusted mortality levels were in the best two-thirds.
- Risk-adjusted readmission rates were in the best two-thirds.
- Standardized costs per discharge were in the best two-thirds.
- Risk-adjusted mortality rates or standardized costs were in the best one-third.

The objective is to identify hospitals that consistently performed at an above-average level on at least one measure (cost or quality) and that always performed reasonably well on all three measures. The rationale for this methodology is discussed in detail in our March 2010 report (Medicare Payment Advisory Commission 2010c).

Examining performance of relatively efficient and other hospitals in 2006 to 2008 Of the 2,171 hospitals that met our screening criteria, 219 were found to be relatively efficient during 2006 through 2008. The set of relatively efficient providers was a diverse array of hospitals, including large teaching hospitals and smaller rural hospitals. CAHs were excluded from the analysis because they are not paid under the IPPS.

We examined the performance of relatively efficient hospitals for 2006 through 2008 on three measures by reporting the group's median performance divided by the median for the set of 2,171 hospitals in our analysis (Table 3-6). The median efficient hospital's relative risk-adjusted 30-day mortality rate from 2006 through 2008 is 82 percent of the national median, meaning that the typical hospital in the efficient group had a risk-adjusted 30-day mortality rate that was 18 percent below the national

Characteristics of relatively efficient providers

Over the past few years, we have identified relatively efficient hospitals (those that perform well on quality and cost) and conducted site visits to a sample of top performers. These site visits serve as hypothesis-gathering interviews. From interviews and data analysis, we hypothesized that large hospitals, those with post-acute care facilities (e.g., skilled nursing facilities, inpatient rehabilitation facilities, home health units), those that were integrated with their physician staffs, and those under financial pressure were more likely to be in our efficient group based on performance in 2006 through 2008. We also hypothesized that hospitals focusing on revenue growth were less likely to be top performers in terms of efficiency. In this text box we show the results from a logistic regression used to test these hypotheses. It may appear counterintuitive that these five hypotheses do not include the quality of management, the quality of physician–hospital relationships, and the patient safety culture of the hospital. We are not questioning the importance of management, physician–hospital relationships, and a patient safety culture (they may all be more important than any structural factor), but this analysis is limited to characteristics that are quantifiable with available data.

We found that no single structural factor guarantees or precludes top performance, but our logistic regression

model suggests that certain structural factors appear to increase the odds of being a top performer:

- Larger hospitals were more likely to be in the efficient group ($p < 0.01$). This finding is consistent with the literature, which has consistently found an inverse relationship between volume and mortality (Birkmeyer et al. 2002, Halm et al. 2002, Keeler et al. 1992, Ross et al. 2010, Silber et al. 2010).
- Having a skilled nursing facility may have increased the odds of being in the efficient group because of lower inpatient costs and fewer readmissions. But the evidence is not statistically significant ($p = 0.08$). Given our site visits, we expected hospitals with post-acute care facilities to discharge their patients sooner and to have lower inpatient costs. While owning a skilled nursing facility may have some effect on being an efficient group, we found no effect from owning an inpatient rehabilitation facility or a home health agency.
- Physician integration improved the odds of being in our efficient group ($p = 0.02$). We expected this result, because integrated physicians appear to be more willing to spend time with the hospital staff standardizing care protocols.

(continued next page)

median. Likewise, the efficient group had a median standardized cost per discharge that was 9 percent below the national median during 2006 through 2008. Median readmission rates for the efficient group were 3 percent of the national median during 2006 through 2008.

Historically strong performers had lower mortality and readmissions in 2009 Because no method of risk adjustment is perfect, we examined the performance of the relatively efficient hospitals using an array of risk-adjusted mortality measures (Table 3-6). The composite mortality levels remained 15 percent below the national median in 2009. In addition to the composite AHRQ 30-day mortality measure, we reported three risk-adjusted 30-day

mortality rates developed by CMS (for acute myocardial infarction, congestive heart failure, and pneumonia), which are computed by using three years of data (2007–2009). The mortality levels for the specific conditions measured by CMS were 3 percent to 8 percent lower for the historically efficient group. Readmission rates were up to 4 percent lower in the efficient group, depending on the measure used (Table 3-6). The relatively efficient group also performed similarly to other hospitals on patient satisfaction. The share of patients who gave the median hospital a top rating was 66 percent for the relatively efficient group and 64 percent for the comparison group.

Characteristics of relatively efficient providers (cont.)

- Hospitals that historically faced financial pressure from 2003 through 2005 were more likely to be in the efficient group from 2006 through 2008 ($p < 0.01$). This result is consistent with our finding that financial pressure leads to lower costs; however, hospitals under high pressure tended to have more readmissions.
- Hospitals with strong revenue growth were not significantly more or less likely to be in the high-performing group. In our site visits to hospitals, some managers appeared to place greater emphasis on volume growth than others. This tendency may distract some of the organization's attention away from cost and quality metrics. Using volume growth as a proxy for managerial focus on volume, we hypothesized that hospitals in the top third of historic revenue growth would be less likely to be in our efficient group because of a greater managerial focus on volume. However, we found no difference in the likelihood of being in the efficient group ($p = 0.62$). Hospitals with strong volume growth tended to have higher costs, but they also tended to have lower mortality, resulting in no net difference in the odds of being in our efficient group.

We also controlled for potential confounding factors such as a hospital's Medicaid and Medicare share of patient days, the share of Medicare patients eligible for

Supplemental Security Income benefits, the share of the county population that was uninsured, whether the hospital was in a system, whether the hospital had one or more approved resident training programs, whether it had electronic medical records, whether it was for profit, whether the hospital was located in an urban area, and per capita income in the county where the hospital was located. None of these control variables is statistically significant in the multivariate model.

To look more closely at the driving forces behind the relationship between the structural variables and assignment to the efficient group, we also ran a series of ordinary least-squares regressions in which the dependent variables were relative performance on our measures of standardized costs per discharge, risk-adjusted mortality, and risk-adjusted readmissions. These analyses generally supported our hypotheses that larger hospitals tend to have lower mortality and that hospitals with skilled nursing facilities tend to have lower inpatient costs and readmissions. We also found that hospitals under financial pressure tended to have lower costs. However, we found that hospitals under high financial pressure tended to have higher readmission rates. We cannot be sure if the high level of financial pressure influences readmissions, or if other factors such as economic distress among the patient population contributed to both the hospitals' financial stress and their high readmission rates (Medicare Payment Advisory Commission 2010b). ■

Historically strong performers continue to have lower cost in 2009 Hospitals that were low-cost and low-mortality providers from 2006 through 2008 continued to have lower costs in 2009. The median standardized Medicare cost per discharge in the efficient group was 10 percent lower than the national median, compared with 2 percent higher for the other group. The lower costs allowed the relatively efficient hospitals to generate higher overall Medicare margins. The median hospital in the efficient group had an overall Medicare margin of 3 percent, while the median hospital in the other group had an overall Medicare margin of -6 percent. Among the relatively efficient hospitals, 65 percent had positive Medicare margins compared with 34 percent in the other group. The distribution ranged from -3

percent at the efficient groups' 25th percentile to 7 percent at the 75th percentile. For the comparison group, the 25th percentile was -17 percent and the 75th percentile was 3 percent.

We also examined relatively efficient hospitals that faced consistent overall financial losses (including revenues and costs from all payers and all lines of business) to see if any of these hospitals were in danger of closure. Among the efficient group, 2 percent (four hospitals) consistently had negative total (all payer) margins from 2006 through 2009. Among these four hospitals, one has since partnered with a larger facility, one is contemplating offers to be purchased, and one is planning to tear down the existing facility and

its parent system will build a more efficient facility at the same location. The fourth is a teaching hospital that appears to have financial resources from a foundation that supports the hospital. Therefore, we find that consistent all-payer losses are rare among the relatively efficient hospitals, and we expect closures to be a very rare event. Among the less efficient hospitals, a much larger share (8 percent) faced consistent financial losses during the 2006 through 2009 period. This loss could stem from their higher cost structures.

Continuing improvement in methods used to identify efficient providers Our current measures of hospital costs and outcomes focus on inpatient care. Because we expect to see continual improvement in risk-adjustment methodologies, the measures we use to identify efficient providers will evolve and may eventually include outpatient metrics. We may also break down our analysis to focus more narrowly on the lowest cost providers that can generate high-quality outcomes. Finally, we may examine the potential for looking at combined readmission and mortality measures because some mortality and readmission metrics tend to be negatively correlated.

How should Medicare payments change in 2012?

Each year, we provide update recommendations for services covered by Medicare's operating IPPS and OPSS.¹⁶ These recommendations apply only to acute care inpatient and outpatient services; update recommendations for services furnished in hospital-owned rehabilitation, home health, and skilled nursing units are based on separate analyses for those types of Medicare services. For both the acute IPPS and OPSS, the update in current law for fiscal year 2012 equals the projected increase in the hospital operating market basket index minus an adjustment equal to the Secretary's forecast of the 10-year average productivity growth in the country and a -0.1 percent budgetary adjustment.

CMS measures price inflation for the goods and services hospitals use in producing inpatient and outpatient services with the hospital operating market basket index. CMS's latest forecast of the change in this index for fiscal year 2012 is 2.6 percent, but it will update the forecast twice before using it to revise payments in 2012. The productivity forecast is currently 1.3 percent. The net result is a current law update of at most 1.2 percent (2.6 - 1.3 - 0.1). The 1.2

percent rate is an upper bound under current law because CMS has stated that it also must eventually make a -3.9 percent adjustment to inpatient payments to prevent further overpayments due to DCI. If CMS took some of the DCI adjustment in 2012, updates would be lower than 1.2 percent.

Update recommendation

RECOMMENDATION 3

The Congress should increase payment rates for the acute care hospital inpatient and outpatient prospective payment systems in 2012 by 1 percent. The Congress should also require the Secretary of Health and Human Services to make adjustments to inpatient payment rates in future years to fully recover all overpayments due to documentation and coding improvements.

RATIONALE 3

In considering its update recommendation, the Commission has struck a balance between a number of competing factors. On the one hand, average total Medicare margins are negative (-5 percent in 2009 and projected to reach -7 percent in 2011). On the other hand, our update framework indicators (access to care, including supply and service volume; quality of care; and access to capital) are positive. Furthermore, the negative Medicare margins are due at least in part to the lack of private financial pressure for cost containment, and the set of hospitals identified as efficient have a median Medicare margin of about 3 percent. On the basis of these circumstances, the Commission contemplated an update of 2.5 percent.

However, two additional considerations led the Commission to its recommended update of 1 percent. For inpatient services, the Commission and others have documented past and ongoing overpayments resulting from changes in documentation and coding after implementation of MS-DRGs in 2008. Current law does not allow full recovery of past overpayments and no action has been taken to stop the ongoing overpayments. The Commission believes that all overpayments should be recovered and that the most urgent step is to stop the ongoing overpayments. To accomplish this objective, the Commission would reduce the ongoing overpayment by 1.5 percentage points—that is, the difference between its contemplated update of 2.5 percent and its recommended update of 1 percent. This adjustment would account for 1.5 percentage points of the 3.9 percent adjustment needed to fully prevent accumulation of further overpayments.

For outpatient hospital services, the Commission is concerned that significant payment disparities among Medicare's ambulatory care settings (hospital outpatient departments, ambulatory surgical centers, and physician offices) for similar services are fostering undesirable financial incentives. Physician practices and ambulatory surgical centers are being reorganized as hospital outpatient entities in part to receive higher reimbursements. The Commission believes that Medicare should seek to pay similar amounts for similar services, taking into account differences in quality of care and in the relative risks of the patient populations. The Commission is concerned by the trend to reorganize for higher reimbursement and will examine this issue. However, in the interim, the modest update of 1 percent is warranted in the hospital outpatient setting to slow the growing payment rate disparities among ambulatory care settings.

We also recommend recovering all overpayments due to DCI. This is necessary to make the transition to MS-DRGs budget neutral. The Secretary is currently required to recover overpayments from 2008 and 2009, but current law does not permit the Secretary to recover overpayments that occurred in 2010 and that will continue to accumulate in 2011 and 2012 until CMS makes an offsetting adjustment of -3.9 percent.

Spending

- This recommendation would increase Medicare spending by between \$250 million and \$750 million in 2012 and would save between \$1 billion and \$5 billion over five years as past overpayments are recovered in future years.

Beneficiary and provider

- This recommendation should have no negative impact on beneficiary access to care and is not expected to affect providers' willingness and ability to provide care to Medicare beneficiaries.

The transition to MS-DRGs should be budget neutral. To accomplish this transition, future adjustments will be needed to prevent further overpayments and recover past overpayments. The speed at which these adjustments take place can be evaluated each year. Next year, when the Commission makes recommendations for 2013, we will again have to evaluate the degree to which payments should be adjusted to prevent further overpayments and recover past overpayments. This evaluation is necessary because of the overpayments that occurred in 2010 and will continue in 2011 and 2012 because CMS has not yet adjusted the 3.9 percent DCI effect. ■

Endnotes

- 1 National and state-level ratios of hospital beds per capita were calculated using staffed inpatient bed data from the American Hospital Association's "Annual Survey of Hospitals," population data from the U.S. Census Bureau, and Medicare enrollment data from CMS's Denominator file.
- 2 The share of hospitals and their affiliates providing each service was calculated as the percentage of hospitals indicating availability of the services within the hospital, network, system, or joint venture.
- 3 Outpatient service volume is measured by counting the number of separately payable Healthcare Common Procedure Coding System (HCPCS) codes. HCPCS definitions can change over time as can the HCPCS codes that are paid separately and the ones that are bundled, which can have some effect on annual changes in volume.
- 4 The data on visits to hospital-based practices come from outpatient claims files. Data on visits to freestanding physician offices come from physicians' Medicare claims. The physician claims file shows that billings for visits to hospital-based clinics grew by roughly 10 percent compared with 1 percent growth at freestanding offices.
- 5 Data concerning the share of beneficiaries with at least one inpatient hospital stay, the average number of inpatient stays per hospitalized beneficiary, and the average beneficiary length of stay were calculated using Medicare inpatient claims data from CMS's MedPAR files and beneficiary enrollment data were calculated from CMS's denominator file. Hospital occupancy rates were calculated using the total bed days and staffed beds variables from the American Hospital Association's "Annual Survey of Hospitals."
- 6 Data from the American Hospital Association 2010 annual hospital survey also illustrate the trend toward hospital consolidation and the involvement of physicians in this trend. From 2004 to 2008, the number of hospitals that were members of a hospital system increased from 52 percent to nearly 56 percent, while the share of hospitals with an integrated physician employment model increased from 31 percent to 38 percent.
- 7 These events included those on the National Quality Forum's list of serious reportable events, Medicare's list of hospital-acquired conditions, and the four highest levels of the National Coordinating Council for Medication Errors Reporting and Prevention Index for Categorizing Errors (in all cases these are events in which harm reaches the patient).
- 8 The 3M software identifies readmissions that are potentially preventable by first excluding certain types of readmissions that are not related, such as an admission for trauma surgery or hip replacement following a pneumonia admission. To adjust for patient risk, the software compares the actual readmission rate with rates for patients in similar resource use categories (all patient refined-DRGs). A key difference from the Hospital Compare measures is that the 3M measure examines readmissions across all conditions rather than only the three used by CMS.
- 9 Similarly, the Commission has found that the measures currently reported by CMS for short-stay skilled nursing facility (SNF) patients have a number of limitations, including sample bias and evidence that the measures are not valid; therefore we instead use two outcome measures in our annual analysis of SNF quality because they capture important outcomes for patients admitted for a Medicare-covered SNF stay (Medicare Payment Advisory Commission 2007).
- 10 A margin is calculated as the difference between Medicare payments and Medicare costs divided by payments. The services included in the overall margin are Medicare acute inpatient, outpatient, graduate medical education, Medicare SNF (including swing beds), Medicare home health care, Medicare inpatient psychiatric, and Medicare inpatient rehabilitation.
- 11 In 2009, there was a substantial difference between the forecasted market basket used to set payment updates, projected to increase by 3.6 percent, and the actual increase of 2.6 percent, measured after the year is completed. Payment updates were set based on the forecasted market basket increase. Inpatient cost growth per discharge was roughly in between the actual and forecasted increase in the market basket. On a case-mix-adjusted basis, outpatient costs grew at underlying input prices.
- 12 The most recent cost growth data available at the time of this analysis were for the nine months ending September 30, 2010, from certain for-profit systems that report quarterly results. We compared 2009 and 2010 costs for Hospital Corporation of America, Community Health Systems, Lifepoint, Health Management Associates, Tenet, and Universal Health Services.
- 13 Hospitals located in counties with relatively low levels of spending will receive a share of the fixed \$150 million reserved for 2011 and \$250 million reserved for FY 2012 based on their relative proportion of IPPS operating payments. The Patient Protection and Affordable Care Act of 2010 set the two-year payment total at \$400 million.

- 14 The American Recovery and Reinvestment Act of 2009 mandates that HIT payments also be made to hospitals through the Medicaid program.
- 15 Medicare spending varies in part because of the factors Medicare uses to account for differing wages, payment rates, and health status. We adjust for those factors to arrive at service use. A discussion of our methods to compute regional variation in service use is available at: http://www.medpac.gov/documents/Dec09_RegionalVariation_report.pdf.
- 16 Our update recommendations focus on inpatient operating payment rates and payment rates for outpatient services (which encompass both operating and capital costs of outpatient services). The Secretary of Health and Human Services makes a separate evaluation of updates to per discharge payment rates for inpatient capital costs.

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CHAPTER 4

**Physician and other health
professional services**

R E C O M M E N D A T I O N

- 4** The Congress should update payments for physician fee schedule services in 2012 by 1 percent.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Physician and other health professional services

Chapter summary

Physicians and other health professionals perform a broad range of services, including office visits, surgical procedures, and a variety of diagnostic and therapeutic services furnished in all health care settings. In 2009, fee-for-service (FFS) Medicare spent about \$64 billion on physician and other health professional services, accounting for 13 percent of total Medicare spending and 20 percent of Medicare's FFS spending. Among the 1 million clinicians in Medicare's registry, about half are physicians who actively bill Medicare. The remainder includes other health professionals, such as nurse practitioners, chiropractors, and physical therapists. These health professionals may bill Medicare independently (accounting for 10 percent of physician fee-schedule spending) or provide services under physician supervision. Almost all FFS Medicare beneficiaries (98 percent) received at least one physician service in 2009.

Two key issues serve as context for considering the adequacy of payments to physicians. The first is beneficiary access to primary care. While our analysis finds that access to physician and other health professional services is good nationally, a small share of the Medicare population continues to report problems finding a new primary care physician. This challenge raises serious concerns not only for the beneficiaries who are personally affected but also—on a larger scale—for the functioning of our health care delivery system. The Commission has recommended enhancements to primary care, such

In this chapter

- Are Medicare payments adequate in 2011?
.....
- How should Medicare payments change in 2012?
.....
- Future work
.....

as increasing Medicare payments for primary care services provided by primary care practitioners. Adoption of this policy by the Congress marks an important step toward ensuring beneficiaries' access to primary care, but more levers should be explored, including taking better advantage of the care management skills that advanced practice nurses and other health professionals can provide and exploring other payment approaches to promote primary care.

The second issue centers on the government's budgetary mechanism to address growth in Medicare spending for physician and other health professional services—called the sustainable growth rate (SGR) system. In previous reports, the Commission reiterated several widely held criticisms and flaws of the SGR system, while recognizing that its existence may have constrained updates in recent years.

A main flaw of the SGR is its blunt approach: In setting across-the-board updates to Medicare's physician fee schedule, the system neither rewards individual providers who restrain unnecessary volume growth nor penalizes those who contribute most to volume increases. Also, the SGR does little to counter the volume incentives that are inherent in FFS payments. In fact, volume growth is one of the major factors that has caused cumulative spending to exceed the SGR's cumulative target.

Current law—under the SGR system—calls for Medicare to cut fees for physician and other health professional services by more than 30 percent over the next several years. There is general consensus that such dramatic fee cuts would be detrimental to beneficiary access to care, and legislative overrides of the SGR have successfully averted payment cuts in recent years. However, these overrides are merely temporary, and their short-term nature has been problematic for providers and burdens CMS's resources. In addition, several of the earlier overrides contributed to the amount of dollars that must be recouped through cuts.

Although it seems counterintuitive that longer term changes—with more realistic future updates—have not been passed into law, such proposals are quite costly (from a budgetary scoring perspective) because they eliminate some or all of the scheduled fee cuts. But, a potentially more pressing Medicare cost to consider is the mounting frustration of physicians, other health professionals, and their patients if substantial Medicare fee cuts continue to loom large in future years. The Commission plans to continue to work on SGR payment policies and consider various approaches for updating Medicare's physician fee schedule.

Notwithstanding these SGR issues, our analysis of Medicare's payment adequacy for fee-schedule services provided by physicians and other health professionals

finds that most indicators are positive and stable, suggesting that, at current payment levels, most beneficiaries can obtain care on a timely basis.

Beneficiaries' access to care—Overall, beneficiary access to physician services is good and better than that reported by privately insured patients age 50 to 64. For 2010, 75 percent of beneficiaries reported that they had no problem scheduling timely routine-care physician appointments; percentages were even better for illness/injury appointments. Among beneficiaries looking for a new physician, most could find one without major problems; however, finding a primary care physician was more difficult than finding a specialist. As in past surveys, racial and ethnic minorities in both the Medicare and the privately insured populations were more likely to experience access problems.

Other indicators of access include the supply of providers serving Medicare beneficiaries and changes over time in the volume of services provided.

- ***Supply of providers***—The 2008 National Ambulatory Medical Care Survey found that among physicians with at least 10 percent of their practice revenue coming from Medicare, 90 percent accepted at least some new Medicare patients. By specialty, 83 percent of primary care physicians and 95 percent of non-primary care physicians accepted at least some new Medicare patients.
- ***Volume of services***—Service volume per beneficiary continued to grow in 2009. Overall volume (including both service units and intensity) grew 3.3 percent per beneficiary. This rate was slightly lower than the 2008 rate of 3.6 percent. Growth rates varied among broad categories of services, but all were positive.

Quality of care—Most claims-based indicators for ambulatory quality that we examined for the elderly improved slightly or were stable from 2007 to 2009.

Medicare payments and providers' costs—We cannot examine financial performance directly because physicians and other health professionals are not required to report their costs to Medicare. Instead, we analyze indirect measures:

- Medicare's payment for physician fee-schedule services in 2009 averaged 80 percent of private insurer payments for preferred provider organizations, a figure unchanged from the preceding year.
- Depending on the specialty, some specialists received compensation in 2007 that averaged twice the compensation for primary care physicians.
- Regarding inflation in providers' costs, CMS's forecasts of the Medicare Economic Index for 2012 range from 1.0 percent (most recent) to 0.7 percent. ■

Background

Physicians and other health professionals perform a broad range of services, including office visits, surgical procedures, and a variety of diagnostic and therapeutic services. These services are furnished in all settings, including physicians' offices, hospitals, ambulatory surgical centers, skilled nursing facilities, other post-acute care settings, hospices, outpatient dialysis facilities, clinical laboratories, and beneficiaries' homes. Among the 1 million clinicians in Medicare's registry, approximately half are physicians who actively bill Medicare. The remainder includes other health professionals such as nurse practitioners, chiropractors, and physical therapists. These health professionals may bill Medicare independently (accounting for 10 percent of physician fee-schedule spending) or provide services under physician supervision.

Billed to Medicare Part B, fee-for-service (FFS) payments for physician and other health professional services totaled \$64 billion in 2009, accounting for about 13 percent of Medicare's overall spending and 20 percent of Medicare's FFS spending (Boards of Trustees 2010). In the decade 2000 through 2009, Medicare spending per beneficiary on physician fee-schedule services grew 62 percent. Almost all FFS Medicare beneficiaries (98 percent) received at least one physician service in 2009.

In the FFS program, Medicare pays for physician services according to a fee schedule that lists services and their associated payment rates. The fee schedule assigns each service a set of three relative weights (physician work, practice expense, and professional liability insurance) intended to reflect the typical resources needed to provide the service. These weights are adjusted for geographic differences in practice costs and multiplied by a dollar amount—the conversion factor—to determine payment amounts. In general, Medicare updates payments for physician services by increasing or decreasing the conversion factor. For further information, see the Commission's *Payment basics: Physician services payment system*.¹

By law, the update of the physician fee schedule conversion factor is determined by a formula—the sustainable growth rate (SGR)—set forth in the Balanced Budget Act of 1997. It ties payment updates to four factors: changes in input costs, changes in Medicare FFS enrollment, changes in the volume of physician services

relative to growth in the national economy, and changes in law and regulation. Although the SGR formula has yielded negative updates in recent years, the Congress has overridden the formula and taken a series of legislative actions to prevent payment reductions since 2003. Payments for physician services are slated to decline at least 25 percent in 2012 with another cut in 2013, as required by the SGR system.

The mounting cost of looming cuts in Medicare

The Commission asserts that Medicare is facing an additional cost related to the current SGR—namely, mounting frustration in the provider community stemming from the uncertainty of future Medicare payments, with looming payment cuts in the balance. Often referred to as “temporary fixes,” legislative SGR overrides have accounted for relatively small periods of time. For 2011, the Congress passed a 1-year override; for 2010—two 1-month overrides, two 2-month overrides, and one 6-month override. While these stop-gap measures successfully averted payment cuts, their short-term nature has been problematic.

Physician organizations and news media have cited provider dissatisfaction, stress, and frustration with the insecurity of Medicare's future payments for physician services. Additionally, in 2010, CMS experienced a significant administrative burden when it had to delay claims payments in anticipation of a legislative override. Physician groups reported that this delay, in addition to the payment update debates, caused cash flow problems and uncertainty for some physicians, particularly those in smaller practices.

Another issue with several of the earlier overrides is that they added to the total amount of dollars that must be recouped in accordance with the SGR formula. Thus, these overrides resulted in increasing the deficit between actual cumulative spending and the SGR cumulative target.

Other SGR policy considerations

In previous reports, congressional testimony, and discussions at the Commission's public meetings, the Commissioners have reiterated several widely held criticisms and flaws of the SGR system, while recognizing that its existence may have restrained updates in recent years. A main flaw of the current SGR system is its inability to differentiate by individual provider;

it neither rewards specific physicians who restrain unnecessary volume growth nor penalizes those who contribute most to inappropriate volume increases. Also, the SGR does little to counter the volume incentives that are inherent in FFS payments.

In previous Commission analyses, we examined several proposals to modify the SGR. They include differential expenditure targets by categories of services, reconfiguring the SGR formula through technical changes, SGR exemption policies, and a broader expenditure target. Each has advantages and disadvantages, and we discuss them briefly below. However, because current law requires such deep payment cuts, none of these options alone could realistically offer positive updates to physicians and other health professionals. If some providers earned positive updates under current SGR targets, the negative updates borne by the remaining physicians and health professionals would be far greater than 30 percent over the next several years.

Differential expenditure targets by categories of service

A type-of-service option assigns separate target growth rates for specified categories of services (e.g., primary care, imaging). Under this approach, services in categories that exceeded their target growth rate would receive lower subsequent updates than those that were closer to their targets. This option recognizes that spending growth rates differ widely across service categories and attempts to partially ameliorate the criticism that the current system penalizes or rewards all physicians identically, regardless of the individual's or the specialty's contribution toward meeting or exceeding the aggregate expenditure target. Another advantage to a type-of-service approach is that it creates an opportunity to boost payments for categories of services that may be undervalued or underused. For example, in the case of recent legislative proposals, primary care targets were increased.

One challenge for this approach lies in determining ways to adjust for evolving changes in the optimal mix of services that patients receive. To account for such changes, service-specific targets would have to consider factors such as changes in the population, patterns of illness, medical knowledge, and medical technologies—all of which could be associated with clinically appropriate substitution of services across categories.

Technical changes to reconfigure the formula

The SGR formula could be reconfigured to establish more realistic and stable updates. One such option is to amend or eliminate the cumulative aspect of the formula. Updates could be based on annual targets, rather than cumulative ones, for example. This annual target method was used under the volume performance standard (VPS)—the update system for physician services in place before the SGR. The VPS required excess spending from a single year rather than multiple years to be recouped but limited the amount recouped with a floor. Excess spending (spending above the target) that could not be recouped within the floor limits, in essence, was forgiven. An alternative to totally eliminating the cumulative aspect of the SGR would be to count a portion rather than all of excess spending in the calculation of actual cumulative spending (e.g., 50 cents of every dollar above the target).

A second option is to relax the precision of the spending target by creating an allowance “corridor” when comparing actual expenditures with target spending. This modification would not require an exact match of actual spending and target spending but instead would trigger a negative (or positive) update only when the difference exceeded a specified corridor, such as 2 percentage points, around the calculated target. Spending that exceeded this additional allowance would still need to be recouped but only enough to bring actual spending in line with the boundary of the corridor rather than all the way back to the precise target. As a result, some excess volume would be forgiven.

The main advantages of these technical adjustments are that they could provide more realistic and stable updates while retaining some degree of expenditure control. However, to the extent that these approaches forgive any spending above the SGR target, they will result in higher budgetary costs than the SGR system.

SGR exemption policies

In previous Commission work and in current discussions, the Commission examined SGR alternatives that would allow certain providers to be exempt from the current SGR target. These may include physicians and health professionals who become part of an accountable care organization (ACO) and participate in Medicare's ACO program. Currently being designed by CMS, this program is intended to hold health care providers accountable for the quality, cost, and overall care of a population of FFS Medicare beneficiaries and will include incentives

for improving care quality and efficiency. Another set of providers to consider for exemption from SGR updates might be medical practices that qualify as medical homes—providing full care coordination and other patient services. The Commission has also explored policies that identify providers whose Medicare expenditures are outliers compared to peers in their specialty. In general, these exemption options can provide improved accountability, relative to the current SGR, but would affect varying—and in many cases small—numbers of physicians.

Broader expenditure target

In our 2007 report examining SGR alternatives, the Commission explored the concept of a broad expenditure target encompassing all of FFS Medicare. Broader expenditure targets would allow for more flexibility in setting targets among different settings, provider types, and categories of services. In doing so, expenditure targets would not be borne solely by physicians. However, a broader expenditure target also carries many of the same risks as the current SGR system—namely, being too removed from individual providers to create appropriate incentives for efficiency.

The Commission plans to continue discussing SGR payment policies in its upcoming work and to consider various approaches for updating payments for physician and other health professional services.

Are Medicare payments adequate in 2011?

Our analysis of payments for physician services in FFS Medicare shows that, in the aggregate, current payments are adequate. Our assessment examines several indicators: beneficiary access to physician care, including rates of physicians participating with Medicare and taking assignment, and changes in the volume of services provided, quality of care, and Medicare reimbursement levels compared with those in the private sector. In the most recent years for which we have data, each indicator was positive or stable with respect to payment adequacy. Unlike our payment adequacy assessments of other providers, such as hospitals, we cannot look at financial performance of physicians directly because they are not required to report their costs to Medicare.

Beneficiaries' access to care: Generally good with relatively few problems reported

Physicians are often the most important link between Medicare beneficiaries and the health care delivery system. Our analysis of the 2008 Medicare Current Beneficiary Survey shows that about 85 percent of noninstitutionalized FFS beneficiaries report that a doctor's office or clinic is their usual source of care. Beneficiary access to physicians, therefore, is an important indicator to monitor when assessing Medicare's payment adequacy. Our analysis of access to physician services focused on indicators from several sources, including patient surveys, physician surveys, beneficiary focus groups, physician focus groups, and claims data.

2010 patient survey shows that, overall, access is good, but primary care continues to be a concern

To obtain the most current access measures possible, the Commission sponsors a telephone survey each year of a nationally representative, random sample of two groups of people: Medicare beneficiaries age 65 years or older and privately insured individuals age 50 to 64. The overall sample size is 4,000 in each group (totaling 8,000 completed interviews, including an oversample of minority respondents).² By surveying both groups of people—privately insured individuals and Medicare beneficiaries—we can assess the extent to which access problems, such as delays in scheduling an appointment and difficulty finding a new physician, are unique to the Medicare population.³

Results from our 2010 survey indicate that most beneficiaries have reliable access to physician services, with most reporting few or no access problems. Most beneficiaries are able to schedule timely medical appointments and find a new physician when needed, but some beneficiaries experience problems, particularly when they are looking for a primary care physician. Medicare beneficiaries reported similar or better access than privately insured individuals age 50 to 64.

On a national level, this survey does not find widespread physician access problems, but certain market areas may be experiencing more access problems than others due to factors unrelated to Medicare—or even private—payment rates, such as relatively rapid population growth. Moreover, although the share of beneficiaries reporting major problems finding a primary care physician is small, this issue is a serious concern not only to the beneficiaries who are personally affected but also—on a larger scale—for the functioning of our health care

delivery system. The Patient Protection and Affordable Care Act of 2010 (PPACA) contains several provisions to enhance access to primary care, including increasing Medicare payments for primary care services provided by primary care practitioners. This policy marks an important step toward ensuring access, but more levers should be explored. Regulatory changes have also resulted in some payment increases for services that primary care providers frequently provide. The Commission will continue examining multiple approaches for improving Medicare's payment policies to promote primary care.

Most beneficiaries report timely appointments

Because most Medicare beneficiaries have one or more doctor appointments in a given year, an important access indicator we examine is beneficiaries' ability to schedule timely appointments. In the 2010 survey, among those seeking an appointment, most beneficiaries (75 percent) and most privately insured individuals (72 percent) reported "never" having to wait longer than they wanted for an appointment for routine care (Table 4-1). Another 17 percent of Medicare beneficiaries and 21 percent of privately insured individuals reported that they "sometimes" had to wait longer than they wanted for a routine appointment. The differences between the Medicare and privately insured populations in their "never" and "sometimes" response rates were statistically significant, suggesting that Medicare beneficiaries were more satisfied with the timeliness of their routine care appointments.

As expected, rates for getting timely illness- and injury-related appointments were better than rates for routine care appointments. Among those needing appointments, Medicare beneficiaries were more likely than privately insured individuals to report "never" having problems getting timely illness or injury appointments (83 percent of Medicare beneficiaries and 80 percent of privately insured individuals); 13 percent of Medicare beneficiaries and 15 percent of privately insured individuals reported "sometimes" having to wait longer than they wanted. These differences are statistically significant, suggesting that Medicare beneficiaries were slightly less likely than privately insured individuals to encounter delays for illness and injury appointments.

Beneficiaries' access to appointments in 2010 varied by race, with minorities reporting access problems more frequently than whites (Table 4-2, p. 78). This racial disparity existed for both the Medicare and the privately insured populations but was wider among privately insured

patients. For example, among Medicare beneficiaries who sought an appointment, a 2 percentage point difference existed between white and minority beneficiaries reporting never waiting longer than they wanted for routine care appointments. This difference was 7 percentage points among privately insured whites and minorities. The trend was similar for illness and injury appointments. A wider disparity among the privately insured population may reflect variation in private market insurance designs.

Finding disparities in access between whites and minorities has been documented by a large body of research, notably summarized in the Agency for Healthcare Research and Quality's 2008 *National Healthcare Disparities Report*. Although disparities among the Medicare population are generally smaller than in the non-Medicare population, disparities related to race, ethnicity, and socioeconomic status remain a factor in beneficiary access to care (Agency for Healthcare Research and Quality 2008, Institute of Medicine 2002, Reschovsky and O'Malley 2008, Williams et al. 2004).

In addition to the ease of scheduling appointments, our survey also asks about respondents' ability to find a new physician if they are seeking one. As in previous years, relatively few survey respondents reported that they tried to find a new primary care physician or specialist in the past year. This finding suggests that most respondents were either satisfied with their current physician or did not have a health event that made them search for a new one. Specifically, 7 percent of Medicare beneficiaries and 7 percent of privately insured individuals reported that they looked for a new primary care physician in the preceding year; a larger percentage (13 percent of Medicare beneficiaries and 15 percent of privately insured individuals) reported seeking a new specialist (not shown in table).

Finding a primary care physician appeared to be more difficult for privately insured individuals than for Medicare beneficiaries. Specifically, among the small share of people (7 percent in each insurance group) who looked for a new primary care physician in the past year, 79 percent of Medicare beneficiaries and 69 percent of privately insured individuals reported that they had no problem finding one. This difference is statistically significant.

Among the 7 percent of Medicare beneficiaries who sought a new primary care physician, 20 percent reported a problem, compared with 31 percent for the privately insured. Of the patients reporting a problem, 8 percent of Medicare beneficiaries characterized their problems

**TABLE
4-1**

Most aged Medicare beneficiaries and older privately insured individuals have good access to physician care, 2007–2010

Survey question	Medicare (age 65 or older)				Private insurance (age 50–64)			
	2007	2008	2009	2010	2007	2008	2009	2010
Unwanted delay in getting an appointment:								
Among those who needed an appointment in the past 12 months, “How often did you have to wait longer than you wanted to get a doctor’s appointment?”								
For routine care								
Never	75%*	76%*	77%*	75%*	67%*	69%*	71%*	72%*
Sometimes	18*	17*	17*	17*	24*	24*	22*	21*
Usually	3	3*	2*	3*	4	5*	3*	4*
Always	3	2	2	2	3	2	3	3
For illness or injury								
Never	82*	84*	85*	83*	76*	79*	79*	80*
Sometimes	13*	12*	11*	13*	17*	16*	17*	15*
Usually	3	1	2	2	3	2	2	2
Always	2	1*	1	1*	3	2*	2	2*
Looking for a new primary care physician:								
“In the past 12 months, have you tried to get a new primary care doctor?”								
Yes	9	6	6	7	10	7	8	7
No	91	93	93	93	90	93	92	93
Getting a new physician: Among those who tried to get an appointment with a new primary care physician or a specialist in the past 12 months, “How much of a problem was it finding a primary care doctor / specialist who would treat you? Was it...”								
Primary care physician								
No problem	70*	71	78	79*	82*	72	71	69*
Small problem	12	10	10	8	7	13	8	12
Big problem	17	18	12*	12	10	13	21*	19
Specialist								
No problem	85	88	88	87*	79	83	84	82*
Small problem	6	7	7	6*	11	9	9	11*
Big problem	9	4	5	5	10	7	7	6
Not accessing a doctor for medical problems:								
“During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?” (Percent answering “Yes”)								
	10*	8*	7*	8*	12*	12*	11*	12*

Note: Numbers may not sum to 100 percent because missing responses (“Don’t know” or “Refused”) are not presented. Overall sample sizes for each group (Medicare and privately insured) were 2,000 in 2007, 3,000 in 2008, and 4,000 in 2009 and 2010. Sample sizes for individual questions varied.
*Statistically significant difference between the Medicare and privately insured samples in the given year at a 95 percent confidence level.

Source: MedPAC-sponsored telephone survey conducted in 2007, 2008, 2009, and 2010.

**TABLE
4-2**

Medicare beneficiaries have better or similar access to physicians compared with privately insured individuals, but minorities in both groups report problems more frequently, 2010

Survey question	Medicare (age 65 or older)			Private insurance (age 50-64)		
	All	White	Minority	All	White	Minority
Unwanted delay in getting an appointment:						
Among those who needed an appointment in the past 12 months, "How often did you have to wait longer than you wanted to get a doctor's appointment?"						
For routine care						
Never	75%*	76%*	74%*	72%*	73%*†	66%*†
Sometimes	17*	17*	17*	21*	20*	23*
Usually	3*	3	3*	4*	4	6*
Always	2	2	3	3	2	4
For illness or injury						
Never	83*	84*†	80*†	80*	81*†	74*†
Sometimes	13*	12	14*	15*	14†	20*†
Usually	2	2	2	2	2	2
Always	1*	1*†	2†	2*	2*	3
Looking for a new primary care physician:						
"In the past 12 months, have you tried to get a new primary care doctor?"						
Yes	7	7	7	7	7	6
No	93	93	92	93	93	94
Getting a new physician: Among those who tried to get an appointment with a new primary care physician or a specialist in the past 12 months, "How much of a problem was it finding a primary care doctor / specialist who would treat you? Was it..."						
Primary care physician						
No problem	79*	80*	76	69*	69*	67
Small problem	8	7	9	12	11	15
Big problem	12	12	14	19	19	18
Specialist						
No problem	87*	89*†	78†	82*	83*†	73†
Small problem	6*	5*†	11†	11*	11*	14
Big problem	5	5	9	6	5†	13†
Not accessing a doctor for medical problems:						
"During the past 12 months, did you have any health problem or condition about which you think you should have seen a doctor or other medical person, but did not?" (Percent answering "Yes")						
	8*	8*	9*	12*	12*	12*

Note: Numbers may not sum to 100 percent because missing responses ("Don't know" or "Refused") are not presented. Overall sample size for each group (Medicare and privately insured) is 4,000. Sample sizes for individual questions varied.

*Statistically significant difference between the Medicare and privately insured samples at a 95 percent confidence level.

†Statistically significant difference by race within the same insurance category at a 95 percent confidence level.

Source: MedPAC-sponsored telephone surveys, conducted May-September 2010.

as “small,” compared with 12 percent of the privately insured; 12 percent of Medicare beneficiaries reported their problem as “big,” compared with 19 percent of the privately insured. These comparative rates in 2010 were similar to those found in our 2009 survey.

Because several recent media reports and association publications have misstated the numbers that we present in this annual chapter, we want to emphasize, at the risk of being redundant, that the percentage of beneficiaries and privately insured people reporting problems comes from a subset of those who indicate that they were, in fact, looking for a new physician or tried to schedule an appointment in the last year. Survey respondents who did not look for a new physician or did not try to make a physician appointment were not asked about related problems. Thus, the rates of patients reporting problems refer only to those people to whom the question applies and not to the Medicare or privately insured population at large. Accordingly, among the 7 percent of Medicare beneficiaries reporting that they looked for a new primary care physician in the preceding year, those reporting that they experienced a “big” or a “small” problem correspond to less than 2 percent of the total Medicare population. Although this percentage may seem small, the problems these beneficiaries—and their younger counterparts—face can be personally distressing and are often featured in local and national media reports.

As in previous years, we found that patients seeking a new specialist were less likely to report problems than those seeking a new primary care physician. Among those looking for a new specialist, 87 percent of Medicare beneficiaries reported “no problem” finding one in the past year, compared with 82 percent of privately insured individuals. These trends are consistent with the findings in surveys we conducted in previous years (Table 4-1, p. 77). Although when looking for a new physician, Medicare patients have an easier time finding a specialist than a primary care physician, the Commission is aware that access may be more difficult for some specialties than for others. For example, in previous physician focus groups, psychiatry was the most frequently identified specialty for which physicians reported having difficulty finding referrals for their Medicare patients (Medicare Payment Advisory Commission 2010).

Our patient survey reveals that whites were less likely than minorities to report problems finding a new specialist (Table 4-2). Specifically, among Medicare beneficiaries, 89 percent of whites and 78 percent of minorities reported

“no problem” finding a specialist. In the privately insured population, a similar disparity existed: 83 percent of whites and 73 percent of minorities reported “no problem.” Several other studies have found a disparity in access to specialists. One study, for example, found that primary care physicians with relatively large proportions of African American patients in their Medicare caseloads reported facing greater difficulty obtaining high-quality referrals to subspecialists (Bach et al. 2004). Though not limited to Medicare patients, a more recent study similarly found that physicians with a larger share of minorities in their practice were more likely to report difficulties obtaining referrals to specialists for their patients (Reschovsky and O’Malley 2008). In this study, physicians attributed such problems to the fact that many of their patients were uninsured or had insurance coverage that posed access barriers rather than to an inadequate supply of qualified specialists in the area.

Although sample size constraints in the Commission’s patient survey make statistically significant comparisons among the minority groups difficult, we found somewhat larger disparities between Hispanics and other minorities (Native Americans, Alaskan Natives, Asian Americans, and Hawaiian and Pacific Islanders) than between African Americans and whites in both the Medicare and the privately insured population (data not shown).

Reports of not getting needed physician care were more frequent for privately insured and lower income individuals

Our survey also examines rates of patients reporting that they did not see a physician when they thought they should have. As in previous years, Medicare beneficiaries (8 percent) were less likely than their privately insured counterparts (12 percent) to say that they should have seen a doctor for a medical problem in the past year but did not (Table 4-1, p. 77). This difference was also reported in a 2007 survey conducted by the Center for Studying Health System Change (Cunningham 2008).

In our survey, for both Medicare and privately insured people, those with lower incomes were more likely to report forgoing physician care. Specifically, among those in the lowest income categories, 12 percent of Medicare beneficiaries and 27 percent of privately insured individuals reported forgoing care. In contrast, among those in the highest income category, 5 percent of Medicare beneficiaries and 10 percent of privately insured people reported forgoing care.

The two most frequently reported reasons for forgoing care among both the Medicare and the privately insured samples were that they “just put it off” and “didn’t think the problem was serious.” Among the 8 percent of beneficiaries who reported forgoing care, less than one-fifth (corresponding to less than 2 percent of the entire beneficiary population) listed physician availability issues (e.g., scheduling an appointment time or finding a doctor) as the problem. As in previous years, privately insured individuals were more likely than Medicare beneficiaries to attribute cost as a factor in forgoing care. Specifically, among the 8 percent of beneficiaries who reported forgoing care, less than one-fifth (again, corresponding to less than 2 percent of the entire beneficiary population) attributed it to thinking that it “would cost too much.” In comparison, among the 12 percent of privately insured individuals who reported forgoing care, more than a quarter attributed it to cost.

Rural and urban area analysis

Despite having 8,000 respondents, our survey is not large enough to evaluate access by specific market areas, but we are able to compare access by rural and urban areas. On most indicators, rural and urban Medicare beneficiaries reported generally similar access. Among those looking for a new primary care physician, for example, 83 percent of rural beneficiaries and 78 percent of urban beneficiaries report “no problem.” Rural beneficiaries were a little more likely to report having any difficulty scheduling a timely routine care appointment. Specifically, 72 percent of rural beneficiaries and 76 percent of urban beneficiaries reported that they “never” had a problem getting routine care appointments. Our survey also found that rural Medicare patients reported the same or better access than rural privately insured patients. Likewise, urban Medicare patients reported the same or better access than urban privately insured patients. (For more details, see online Appendix A to this chapter, available at <http://www.medpac.gov>.)

In 2010, we also visited health systems, physicians’ offices, and health clinics in Alabama, Kansas, and Montana to gain further insight into access issues in different areas of the country. Specifically, we interviewed physicians, other health professionals, and health administrators in rural areas and conducted focus groups with Medicare beneficiaries in rural and urban areas of each of the three states. These encounters were not meant to be representative of rural and urban areas nationwide, but they provided us the opportunity to probe into access

issues related to their community in a more in-depth manner to complement the information collected from our national telephone surveys.

In urban areas, nearly everyone in the focus groups reported that they had a regular doctor and could get appointments reasonably quickly, especially for an urgent problem. In a few instances, participants reported that they or someone they knew had experienced a situation in which a physician was not taking Medicare.

In rural areas, beneficiaries almost universally reported that they have a usual source of primary care, and many said that they could get appointments within a few days. However, beneficiaries stated that they were aware of the limited availability of physicians in their local communities. Beneficiaries reported that access to specialists often involves making appointments for days when specialists are in the local clinic or hospital or traveling to the nearest city or rural referral center. Rural beneficiaries often cited travel and transportation issues as a problem in accessing care.

Physicians in rural areas stated that their practices accepted Medicare patients in addition to patients with other insurance and often the uninsured. They reported that the greatest issue affecting patient access is recruiting physicians to practice in their area. Some of the challenges to physician recruitment in rural areas include their higher frequency of being on call, the rural lifestyle, and a shrinking pool of physicians who practice primary care. When asked about income factors, physicians said that income differences between urban and rural primary care physicians were not a concern.

Other national patient surveys show comparable results

Results from other patient surveys (conducted or sponsored by CMS, The Commonwealth Fund, the Center for Studying Health System Change (HSC), and AARP) are analogous to the Commission’s survey results on access to physician services. We summarize findings from these studies below.

- The Consumer Assessment of Healthcare Providers and Systems for Medicare FFS—a large CMS-sponsored survey of FFS beneficiaries—found that for 2010, 88 percent of Medicare beneficiaries reported “always” or “usually” being able to schedule timely appointments for routine care. Also, 91 percent of beneficiaries reported that they “always” or “usually”

were able to schedule an appointment with a specialist as soon as they wanted. The share of beneficiaries reporting major problems accessing physicians (i.e., “never” getting timely appointments) was below 3 percent for both routine and specialty care.

- Results from the 2008 Medicare Current Beneficiary Survey—another large CMS survey of beneficiaries—found that 94 percent of noninstitutional FFS beneficiaries have a usual place for seeking medical care. For the vast majority of them, it is a doctor’s office or a doctor’s clinic. About 4 percent of FFS beneficiaries said that they had trouble getting care, and 9 percent reported that they had a health problem in the past year for which they think they should have seen a doctor, but did not. Regarding the ability to schedule timely physician appointments, 76 percent of FFS beneficiaries reported that they waited 9 or fewer days for their most recent appointment.
- In a 2007 patient survey, the Commonwealth Fund found that, compared with people who have private insurance, Medicare beneficiaries age 65 years or older reported fewer problems obtaining medical care (specifically, seeing a doctor or medical professional), less financial hardship due to medical bills, and higher overall satisfaction with their health care (Davis et al. 2009). This survey found that access problems were more frequently reported by disabled beneficiaries, however.
- HSC found in its large 2007 household survey that Medicare beneficiaries were significantly less likely to report delaying or not getting needed medical care than people with employer-sponsored private insurance and nongroup private insurance (Cunningham 2008). Although Medicare beneficiaries fared best, this survey found that access has generally worsened for all insurance types over the past decade.
- AARP’s 2007 patient survey found that Medicare respondents were less likely to encounter problems accessing physicians than privately insured people age 50 to 64 years (Keenan 2007). Medicare beneficiaries were also more likely than privately insured individuals to report that they were “extremely satisfied” or “very satisfied.”
- Using a variety of methods, the Government Accountability Office also concluded that Medicare beneficiaries have stable access to physician services (Government Accountability Office 2009b). This

study found that Medicare beneficiaries experienced few problems accessing physician services during a 2007–2008 study period. Furthermore, the proportion of beneficiaries who received physician services and the number of services per beneficiary served increased nationwide from 2000 to 2008.

Physician surveys show that most physicians accept Medicare patients

We also measure beneficiary access to physicians through information obtained in physician surveys, conducted by various organizations and the National Center for Health Statistics. For the most part, these surveys explore physicians’ willingness to accept new patients by various insurance types, finding that most physicians are willing to accept some or all Medicare patients.

The National Ambulatory Medical Care Survey—a national survey of office-based physicians—also shows that over the last several years a large majority of physicians continue to accept new Medicare patients. (This survey does not distinguish physicians who accept all new Medicare patients from those who may accept only some new Medicare patients.) For 2008, among physicians with at least 10 percent of their practice revenue coming from Medicare, 90 percent accepted new Medicare patients (Hing 2010).⁴ By specialty, 83 percent of primary care physicians and about 95 percent of physicians in all other specialties accepted new Medicare patients. The rate of primary care physicians accepting new Medicare patients fell from 88 percent in 2007.

In HSC’s 2008 physician survey, 74 percent of physicians reported that their practices accepted all or most new Medicare patients (Boukus et al. 2009). About 12 percent reported accepting some new Medicare patients and 14 percent indicated that they did not accept any new Medicare patients.⁵ For privately insured patients, 87 percent of physicians reported accepting all or most new privately insured patients; 9 percent said they accepted some new privately insured patients, and 4 percent said they did not accept any. Physicians’ acceptance of new Medicaid patients was lower (53 percent) than for Medicare and privately insured patients.

Physicians who classified themselves in surgical or medical specialties were more likely than primary care physicians to accept all new Medicare and privately insured patients. Physicians in rural areas were more likely than those in urban areas to accept new patients of all insurance types. Newer physicians were more likely than

physicians who had been in practice longer to accept new Medicare patients. Additionally, employee physicians and physicians who are part of a group practice were more likely to accept all new Medicare patients. The last finding is consistent with a recent report released by the Medical Group Management Association. It stated that 92 percent of surveyed group medical practices currently accept new Medicare patients; another 6.5 percent limit their Medicare patients to those who are established patients aging into Medicare; and 1 percent of practices do not accept any Medicare patients.

In a smaller 2009 survey funded by the Robert Wood Johnson Foundation, physicians were more likely to say that private insurance had better payments than FFS Medicare, but more than half reported that Medicare was the same or better on three measures: paperwork, ease of obtaining services for patients, and autonomy in decision making (Keyhani and Federman 2009).

A different type of study—restricted to claims-processing analysis—also compares Medicare with private insurers. Conducted by the American Medical Association (AMA), the 2009 National Health Insurer Report Card shows that Medicare performed similar to or better than private insurers on several claims-processing measures, such as indicators for timeliness, transparency, and accuracy of claims processing (American Medical Association 2009). The report card noted that, although Medicare had higher rates of denied claims (4 percent) than several of the private insurers, Medicare does not require preauthorization for services, as do many private insurers.

Retainer-based physicians are an extremely small share of physicians but growing in number

The practice of retainer-based care or “concierge medicine” has gained attention in recent years. In general, it is physician-based care (typically for primary care) in which patients are charged a membership fee in return for enhanced services. This model of care is associated with lower patient caseloads per physician. We contracted with NORC/Georgetown to learn more about this type of practice, including its prevalence and impact on beneficiary access to physician care.

Through a variety of research methods, the researchers found about 750 retainer-based physicians in fall 2009. Although this number represents an extremely small share—less than 1 percent—of the total number of physicians practicing in the United States, it marks an increase from the 146 retainer-based physicians identified

by the Government Accountability Office in a 2005 report. It is likely that some additional retainer-based physicians were not identified in our updated study, but discussions with physician organizations corroborated the general finding that fewer than 1,000 physicians practiced retainer-based care in 2009.

From interviews, the researchers found that most retainer-based physicians continued to treat Medicare patients and accept Medicare’s payments for covered services. Interviews with local and national patient organizations did not reveal access problems for Medicare beneficiaries attributable to the presence of retainer-based care. However, some representatives reported that making a decision about whether to pay a fee and stay with their physician (who adopted the retainer-based model) was difficult for some beneficiaries. The full report from this study can be found on our website.⁶

Rates of physician participation and services paid on assignment remain high

To supplement our data on the supply of physicians treating Medicare patients and beneficiaries’ reported access to physician care, we examine assignment rates (the share of Medicare-allowed charges for which physicians accept assigned fee schedule amounts as payment in full) and physician participation rates (the share of physicians and other health professionals with signed Medicare participation agreements to accept fee-schedule amounts as payment in full). Our analysis of Medicare claims data shows that 99.3 percent of allowed charges for physician services were assigned in 2009 (Figure 4-1); that is, for almost all allowed services that year, physicians agreed to accept the Medicare fee schedule amount as payment in full for the service.⁷ The assignment rate has held steady at more than 99 percent since 2000.

The high rate of assigned charges reflects the fact that most physicians and other health professionals who bill Medicare are “participating” physicians and other health professionals. That is, for 2009, 95 percent of physicians, limited license practitioners, and other practitioners who billed Medicare had participation agreements with Medicare. Participating providers agree to accept assignment on all allowed Medicare claims in exchange for a 5 percent higher payment on allowed charges. Participating providers also receive nonmonetary benefits, such as being able to receive payments directly from Medicare (less the beneficiary cost-sharing portion) rather than having to collect the total amount from the

beneficiary. This arrangement is a major convenience for many physicians and other health professionals. Participating providers also have their name and contact information listed on Medicare’s website and they have the ability to electronically verify a patient’s Medicare eligibility and supplemental insurance status.⁸ In contrast, physicians and other health professionals who elect to be “nonparticipating” receive a 5 percent lower payment from Medicare for each service they provide but may charge their Medicare patients rates that are up to 9.25 percent higher. This practice of “balance billing” results in higher cost-sharing liabilities for patients. Balance billing is generally rare but varies by geographic area and specialty.

Volume growth consistent with adequate access but highlights pricing and equity concerns

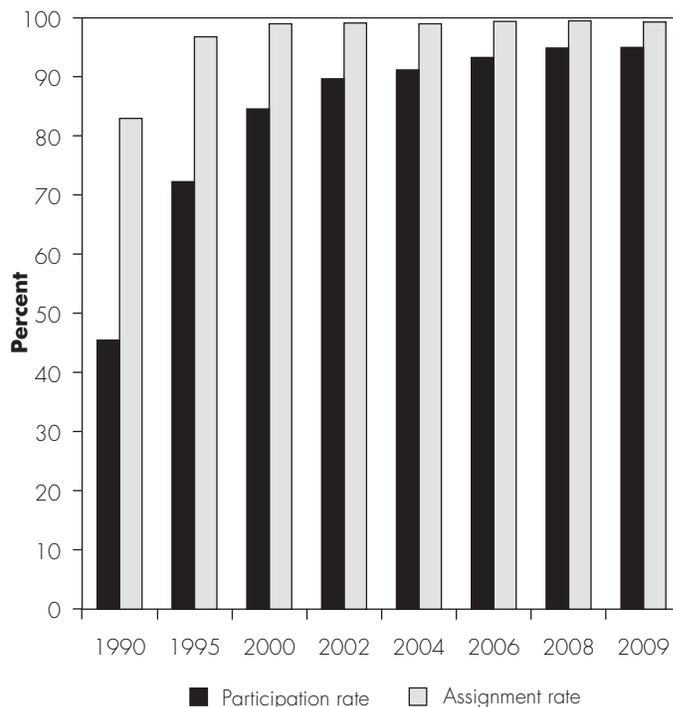
We use annual changes in volume of services as an indicator of beneficiary access—and, by extension, payment adequacy—but caution that interpreting volume growth increases and decreases is complex, sometimes due to factors unrelated to Medicare’s pricing of services. Changes in clinical practices, population changes, disease prevalence, legislative and regulatory decisions, shifts in site of care, technology, and beneficiary preferences can sometimes explain a rise or fall in service volume.

In 2009, the volume of physician fee-schedule services used per Medicare beneficiary continued to grow. For this analysis, we used claims data for 2004 through 2009 and calculated per beneficiary growth in the units of service furnished by physicians and other professionals billing under Medicare’s physician fee schedule. We weighted the units of service by each service’s relative value units (RVUs) from the physician fee schedule. The result is a measure of growth that accounts for changes in both the number of services and the complexity, or intensity, of those services. We thus distinguish growth in volume from growth in units of service: Volume growth includes changes in intensity, whereas unit-of-service growth does not. Compared with analyzing growth in spending, measuring growth in volume removes the effects of price changes.

Across all services, volume per beneficiary grew 3.3 percent in 2009 (Table 4-3, p. 84). For each broad category of service (see text box, p. 85), growth rates varied but were all positive. Services in the “tests” category grew the most: From 2008 to 2009, test services increased 7.4 percent. In comparison, growth rates were 5.5 percent for other procedures, 5.3 percent for major procedures, 2.0

FIGURE 4-1

Medicare participation and assignment rates have grown to high levels, 1990–2009



Note: Participation rate is the percentage of physicians and other health professionals with signed Medicare participation agreements among those in Medicare’s Registry. Assignment rate is the percentage of Medicare allowed charges paid on assignment.

Source: Ways and Means Greenbook (2004), CMS Data Compendium (2009), MedPAC analysis of Medicare claims for a 5 percent random sample of Medicare beneficiaries.

percent for imaging, and 1.7 percent for evaluation and management (E&M) services.

In contrast to volume growth for the broad service categories, some subcategories of services saw decreases:

- **Coronary artery bypass grafts.** The volume decrease continued a trend in recent years and likely represents substitution of less invasive services for this procedure.
- **Cardiovascular stress tests.** The volume decrease was likely related to the decrease in nuclear medicine studies: About 75 percent of nuclear medicine studies include a stress test. The nuclear medicine decrease was small (3.5 percent) compared with cumulative increases of 12.1 percent that occurred from 2004 to 2008.

**TABLE
4-3**
Use of physician services per fee-for-service beneficiary continues to increase

Type of service	Change in units of service per beneficiary		Change in volume per beneficiary		Percent of total volume
	Average annual 2004-2008	2008-2009	Average annual 2004-2008	2008-2009	
All services	3.2%	2.7%	4.1%	3.3%	100.0%
Evaluation and management	1.7	1.1	3.3	1.7	42.2
Office visit—established patient	1.7	2.0	3.0	2.7	18.3
Hospital visit—subsequent	1.6	-1.8	2.8	-1.0	8.2
Consultation	-0.5	0.2	1.8	0.2	5.4
Emergency room visit	1.7	1.3	3.9	3.1	2.9
Nursing home visit	3.1	3.8	10.8	4.3	2.3
Hospital visit—initial	1.0	-0.3	1.3	-0.2	1.9
Office visit—new patient	1.9	2.6	2.1	2.7	1.7
Imaging	3.8	1.4	6.3	2.0	15.2
Advanced—CT: other	8.6	3.8	9.8	2.4	2.4
Advanced—MRI: other	6.1	1.2	6.1	-0.1	1.7
Standard—nuclear medicine	1.3	-3.7	2.9	-3.5	1.7
Echography—heart	4.9	2.0	5.4	2.2	1.6
Standard—musculoskeletal	2.7	1.2	2.5	0.6	0.9
Echography—other	8.5	6.9	9.1	10.7	1.0
Advanced—MRI: brain	3.6	-0.5	1.9	-3.0	0.8
Imaging/procedure—other	9.7	7.8	12.6	13.9	0.8
Standard—breast	7.1	4.7	5.0	4.8	0.7
Echography—carotid arteries	4.0	0.5	6.5	1.9	0.6
Advanced—CT: head	6.3	3.7	7.3	2.7	0.6
Advanced—PET	N/A	5.5	N/A	3.3	0.5
Standard—chest	1.4	-1.8	0.9	-2.4	0.5
Major procedures	1.6	3.1	2.5	5.3	8.8
Cardiovascular—other	-1.2	0.3	0.7	5.9	1.9
Orthopedic—other	6.3	8.1	6.9	11.4	1.3
Knee replacement	4.1	2.8	5.1	3.7	0.7
Explore, decompress, or excise disc	4.1	6.3	4.8	11.1	0.4
Coronary artery bypass graft	-7.7	-5.8	-7.8	-5.8	0.4
Coronary angioplasty	-2.1	-1.0	-2.5	-1.1	0.4
Hip replacement	1.4	4.4	2.5	5.2	0.4
Hip fracture repair	-0.1	-2.4	0.4	-2.0	0.3
Pacemaker insertion	4.8	4.1	2.4	4.7	0.3
Other procedures	6.4	5.9	4.9	5.5	21.8
Skin—minor and ambulatory	3.6	2.3	4.6	6.7	3.9
Outpatient rehabilitation	6.7	10.9	7.5	11.2	3.0
Radiation therapy	3.0	0.6	7.1	1.9	2.3
Minor—other	15.8	4.6	5.9	4.6	2.2
Cataract removal/lens insertion	0.9	1.6	1.3	2.3	1.5
Minor—musculoskeletal	6.7	4.4	7.8	8.2	1.4
Eye—other	12.9	11.0	7.2	9.4	1.0
Colonoscopy	1.1	-5.0	1.1	-3.4	0.9
Upper gastrointestinal endoscopy	2.1	1.9	2.4	5.3	0.6
Cystoscopy	1.9	0.3	3.8	1.2	0.5
Tests	1.1	2.9	4.9	7.4	5.1
Other tests	-1.4	6.9	5.8	7.8	2.0
Electrocardiograms	1.6	1.4	1.7	2.1	0.5
Cardiovascular stress tests	0.5	-7.4	0.8	-4.0	0.4

Note: CT (computed tomography), PET (positron emission tomography), N/A (not available). Volume is measured as units of service multiplied by each service's relative weight (relative value unit) from the physician fee schedule. To put service use in each year on a common scale, we used the relative weights for 2009. For billing codes not used in 2009, we imputed relative weights based on the average change in weights for each type of service. Some low-volume categories are not shown but are included in the summary calculations. PET not reported for 2004-2008 because of limits on coverage before 2005.

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

Improving the classification of services covered by Medicare's physician fee schedule

Analysis of services covered by Medicare's physician fee schedule optimally requires a service classification system. Without such a system, the services are too numerous—about 7,000 discrete services are billable under Medicare's physician fee schedule—for analysis of trends and other work.

The Berenson-Eggers Type of Service (BETOS) system is the system most commonly used to classify physician services. It was developed with data from the late 1980s for analysis of growth in physician expenditures (Berenson and Holahan 1992). It was later modified at CMS to account for new billing codes and to refine service categories. Since then, CMS has maintained BETOS, every year assigning new codes to categories and deleting codes no longer in use.

The concern now is that parts of BETOS are out of date. Under a contract with the Commission, the Urban Institute convened a group of experts familiar with physician payment and BETOS. Considering the group's discussion, the contractor concluded that the major service categories derived from the system—evaluation and management (E&M), imaging, major procedures, other procedures, and tests—include some errors in service assignment but that those errors are relatively small and not important for purposes of analysis. However, if BETOS is used for payment, errors in service assignment can become unacceptable. The contractor also considered the assignment of services to subcategories, such as office visits by an established patient in the E&M category and knee

replacement in the major procedures category. The contractor concluded that CMS should review and restructure the subcategories. The concern was that in many cases the classifications have their origins in medical care as it was provided in the 1980s and that some subcategories are no longer current. For instance, positron emission tomography services are now assigned to various BETOS categories, depending on the service, but could perhaps be more appropriately assembled into one category dedicated to this relatively new technology.

Another issue the contractor considered was whether CMS should revisit the definition of major procedures. For example, BETOS does not differentiate major eye procedures from other eye procedures. Similarly, BETOS does not differentiate major endoscopic from other endoscopic procedures even though some, such as laparoscopic cholecystectomy, are arguably major procedures. While no consensus was reached on how to consistently define major procedures, criteria for making the decision were considered. One option discussed was to define major procedures as those that have a global surgical period of 10 days or 90 days.¹⁰ A second option was to define major procedures as those that meet a threshold for the number of work relative value units assigned.

Given concerns raised about BETOS, we urge CMS to revisit the structure of the system. Further, we are aware that a restructuring of BETOS could require a commitment of resources that is substantial at a time when the agency is meeting many other demands. ■

- **Colonoscopy, standard chest imaging, and hip fracture repair.** The volume decrease in colonoscopies is more difficult to interpret because beneficiaries use different types of services for screening, diagnosing, and treating diseases of the colon.⁹ We will monitor these services and those for standard chest imaging and hip fracture repair for signs of further changes in utilization.
- **MRI of the brain.** The decrease in volume per beneficiary was larger than the decrease in the number of services per beneficiary. The reason for

the difference is that the intensity of these services declined—that is, average RVUs per service fell—more than the decline in the number of services. Intensity declined because of shifts from studies done with contrast material to studies done without contrast material.

- **Coronary angioplasty.** Volume decreases followed publication of studies showing no better outcomes for patients receiving percutaneous coronary intervention—services included in the coronary

**TABLE
4-4**

Most ambulatory care quality indicators improved or were stable from 2007 to 2009

Indicators	Number of indicators			Total
	Improved	Stable	Worsened	
All	19	16	3	38
Anemia	2	2	0	4
CAD	2	2	0	4
Cancer	2	4	1	7
CHF	5	3	0	8
COPD	1	0	1	2
Depression	0	1	0	1
Diabetes	6	1	0	7
Hypertension	0	0	1	1
Stroke	1	3	0	4

Note: CAD (coronary artery disease), CHF (congestive heart failure), COPD (chronic obstructive pulmonary disease).

Source: MedPAC analysis of Medicare Ambulatory Care Indicators for the Elderly (MACIEs) using the Medicare 5 percent Standard Analytic Files for 2006–2007 and 2008–2009.

angioplasty service category—compared with medical therapy (Boden et al. 2007, Hochman et al. 2006).

- **Hospital visits.** Decreases in both initial and subsequent visits are not surprising given decreases in hospital discharges (see Chapter 3).

Other subcategories saw increases in volume per beneficiary, with some of the increases raising questions about necessity:

- **Imaging services in the “advanced—computed tomography (CT): other” category.** These services grew at an average annual rate of 9.8 percent from 2004 to 2008 and by another 2.4 percent from 2008 to 2009.¹¹ This growth has accompanied dramatic increases in CT availability, raising questions about the costs and benefits of the expansion (Baker et al. 2008).
- **Outpatient rehabilitation, under other procedures.** From 2004 to 2008, the volume of these services per beneficiary grew an average of 7.5 percent per year. From 2008 to 2009, growth was higher still: 11.2 percent. Because of concerns about growth

in spending for these services, limits—known as “therapy caps”—were established as part of the Balanced Budget Act of 1997.¹²

- **Spine surgery, under major procedures.** Much of the growth in “orthopedic—other” is attributable to spine surgery. From 2004 to 2008, service volume went up by an average of 6.9 percent and from 2008 to 2009 it rose by 11.4 percent. The “explore, decompress, or excise disc” category also consists of spine procedures. In this category, service volume grew from 2004 to 2008 by an average of 4.8 percent and from 2008 to 2009, by 11.1 percent. Spine surgery is a type of procedure that has prompted questions about effectiveness and financial relationships between surgeons and device manufacturers (Abelson 2008).

Quality of care: Most quality measures for ambulatory care remained stable or improved

Our analysis of Medicare claims data shows that ambulatory care quality, measured by 38 quality indicators, improved or was stable over the most recent period for which national Medicare claims data are available—from 2007 to 2009. Using a set of quality indicators developed by the Commission, called the Medicare Ambulatory Care Indicators for the Elderly (MACIEs), we measured changes over time in the provision of clinically indicated acute care and follow-up care to FFS Medicare beneficiaries who have been diagnosed with certain acute or chronic diseases that are prevalent in the Medicare elderly population (beneficiaries age 65 years or older). We also examined rates of six types of potentially avoidable hospitalizations for five chronic conditions. Online Appendix B to this chapter describes the Commission’s development of the MACIEs, and online Appendix C to this chapter lists the 38 MACIEs we used in this analysis (available at <http://www.medpac.gov>).

Thirty-five of 38 quality indicators improved or were stable from 2007 to 2009

Applying the 38 MACIE measures, we found that, between 2007 and 2009, most of the rates of provision of clinically appropriate care and potentially preventable hospitalizations improved or remained stable (Table 4-4). Among the 38 MACIE measures, 19 showed statistically significant improvement and 16 showed no statistically significant change. This finding indicates that for most measures, rates of beneficiaries with selected conditions receiving clinically indicated services and averting

potentially avoidable hospitalizations were the same or better in 2009 compared with 2007. Additionally, for diabetes and congestive heart failure patients, reductions in potentially avoidable hospitalizations were correlated with improvements in process measures for their conditions.

Our analysis found a decline in 3 of the 38 quality indicators. About a 2 percentage point decrease occurred in the rate of colonoscopies performed as a follow-up diagnostic procedure for beneficiaries with a first-time diagnosis of iron-deficiency anemia, which is a potential symptom of colon cancer. Changes in the rate for this measure should be viewed cautiously, however, as its calculation involves a small percentage of the Medicare population (about 2.2 percent) and thus the indicator is sensitive to very small changes in the number of beneficiaries with claims for follow-up colonoscopy services. Of more concern is that the percentage of beneficiaries diagnosed with iron-deficiency anemia for whom a follow-up colonoscopy is indicated has remained below 30 percent since we first started examining this indicator for the 2002 to 2003 period. The other two indicators in this year's analysis that had small but statistically significant declines were the rates of potentially preventable hospitalizations for beneficiaries diagnosed with chronic obstructive pulmonary disease and for beneficiaries diagnosed with hypertension. Both conditions often can be controlled in an outpatient setting, so a rise in the hospitalization rate for beneficiaries diagnosed with these conditions may reflect a decline in the quality of outpatient care (Agency for Healthcare Research and Quality 2007).

Most measures of potentially avoidable hospitalizations improved or were stable from 2007 to 2009

Six MACIEs measure the occurrence of potentially avoidable hospitalizations and emergency department visits for five selected chronic conditions. Three of these measures improved, one remained stable, and two worsened, as discussed above. The improved measures were the percentage of beneficiaries with diabetes who were admitted to a hospital for serious short-term, diabetes-related complications; the percentage of these beneficiaries admitted for long-term, diabetes-related complications (e.g., lower extremity amputation); and the percentage of beneficiaries with congestive heart failure who had hospitalizations related to that disease. Rates were stable between 2007 and 2009 for the percentage

of beneficiaries diagnosed with unstable angina who had multiple emergency department visits during the year.

Notably, the potentially avoidable hospitalization rates (i.e., improvements on the indicators) declined concurrently with increases in the use of other clinically indicated services for the same condition. For example, rates of hospitalization decreased for both short-term and long-term complications of diabetes at the same time that increases occurred in the use of diagnostic testing (such as eye exams and lipid and hemoglobin A1c testing) and periodic follow-up clinical assessments for beneficiaries diagnosed with diabetes.

Medicare payments and providers' costs

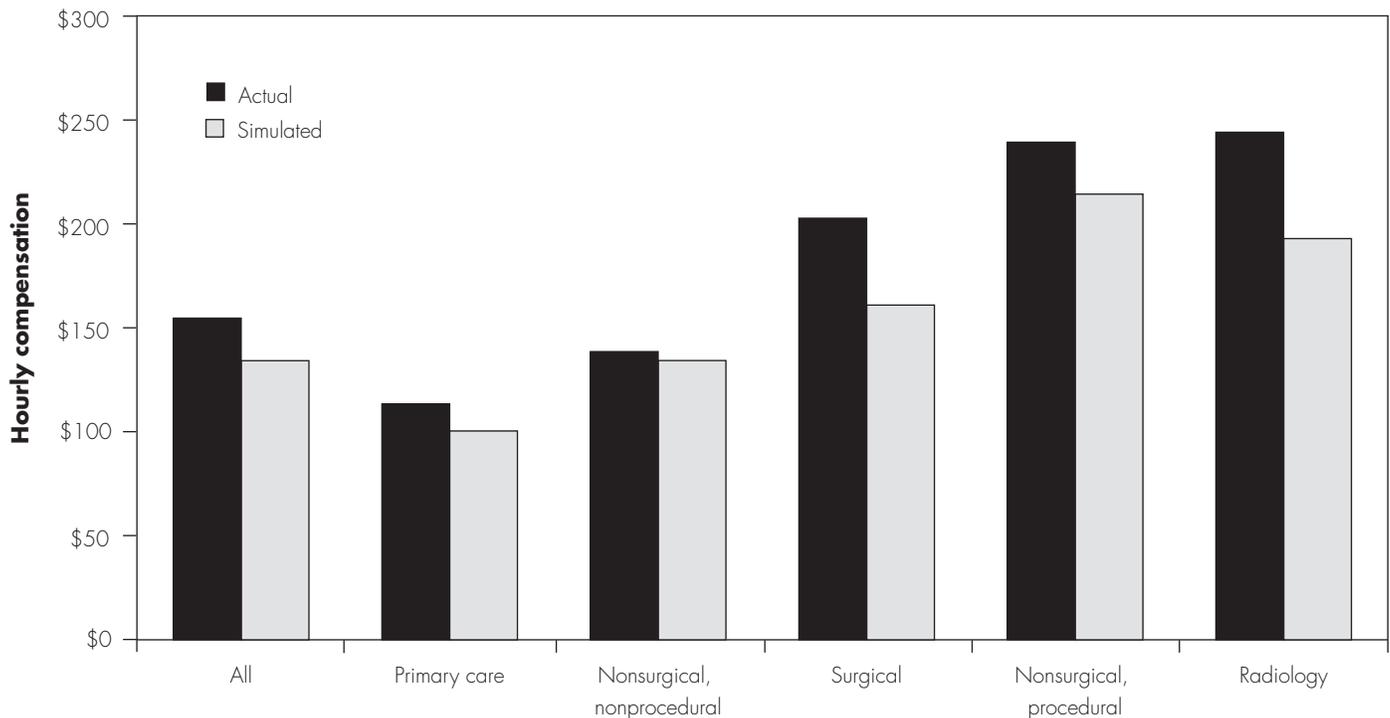
In the absence of cost reports for physician and other health professional services, we use certain indirect measures of this sector's financial status. One such measure is the ratio of Medicare's payments for physician and other health professional services to the payments of private insurers. In 2009, this ratio remained stable. Physician compensation is another indicator. Compensation was lower for primary care physicians than for some specialists, and the disparity between them is large enough to raise concerns about equity and the future of the physician workforce. We also consider forecasts of medical inflation, as measured by the Medicare Economic Index (MEI). These forecasts are revised quarterly and have ranged from 1.0 percent (most recent) to 0.7 percent. The MEI is one of the elements of the formula used to update Medicare's physician fee schedule.

Ratio of Medicare to private insurer fees has remained stable

One measure of Medicare payment adequacy examines the trend in Medicare's allowed physician and other health professional fees (including patient cost sharing) relative to private insurer allowed fees.¹³ In the early to mid-1990s, Medicare payment rates averaged about two-thirds of commercial payment rates for physician and other health professional services, but since 1999 Medicare rates consistently have been near 80 percent of commercial rates. For 2009, we find no change from the results reported for 2008. In each of the two years, Medicare's payments for physician and other health professional services were at 80 percent of commercial rates for preferred provider organizations (PPOs) when averaged across all physician services and geographic areas. We base this analysis on a data set of paid claims for PPO members of a large national private insurer.

**FIGURE
4-2**

Disparities in physician compensation are widest when primary care is compared with nonsurgical proceduralists and radiologists, 2007



Note: Simulated compensation is compensation as if all services were paid under the Medicare physician fee schedule.

Source: Berenson et al. 2010.

More than half of commercially insured individuals are in PPO arrangements, and to the extent that high-deductible plans are PPO based, the PPO segment of the commercial market covers up to 71 percent of enrollment (Kaiser Family Foundation and Health Research & Educational Trust 2010).¹⁴

Findings on access to care for Medicare beneficiaries relative to the commercially insured population suggest that Medicare's lower average payment rates may have less effect on access than local market factors. HSC research cited earlier found that beneficiaries in markets with the widest gaps between Medicare and commercial payment rates reported access problems in proportions similar to those in markets with narrow payment rate differences (Trude and Ginsburg 2005). Moreover, in markets with higher commercial payment rates relative to Medicare, the commercially insured population did not appear to gain better access than Medicare beneficiaries. These findings suggest that developments in local health

systems and markets may strongly influence access for both Medicare beneficiaries and the privately insured.

Compensation is lower for primary care physicians than for specialists

Physician compensation is another measure of payment adequacy. Private payers often use a conversion factor—or multiple conversion factors, depending on the type of service—that differs from Medicare's. The Commission contracted with the Urban Institute, working in collaboration with the Medical Group Management Association (MGMA), for an analysis of the compensation received by physicians—the largest subset of practitioners (Berenson et al. 2010). The contractor used data from MGMA's 2007 Physician Compensation and Production Survey.¹⁵ The contractor compared physician compensation by specialty and analyzed two measures of compensation: "actual compensation," or actual revenues received by a physician, and "simulated compensation," or payments a physician would receive if all the services the

physician furnished were paid under Medicare's physician fee schedule.¹⁶

Averaged across all specialties, actual physician compensation was about \$273,000 per year. Simulated annual compensation for all specialties was about \$240,000—12 percent lower.¹⁷ However, broad ranges underlie these averages.

To examine compensation by specialty, we made comparisons using hourly compensation, which enable us to account for differences among specialties in hours worked per week.¹⁸ The specialty groups with the highest hourly compensation rates were the nonsurgical, procedural group and the radiology group (Figure 4-2).¹⁹ Their actual compensation rates were about \$244 and \$239 per hour, respectively. These rates were more than double the rate for primary care at \$114 per hour.²⁰

Use of simulated hourly compensation instead of actual hourly compensation resulted in minimal narrowing of the disparities between primary care physicians and specialists. Simulated, radiologists' average hourly compensation was about \$193, or 1.9 times the rate of \$101 per hour for primary care physicians. For nonsurgical, procedural physicians, the average simulated compensation per hour was about \$214, or 2.1 times the rate for primary care physicians (the same multiple calculated with actual compensation rates).

The data on physician compensation raise two issues. One is whether compensation levels are equitable, especially the compensation received by some specialists. The other relates to the future of the practitioner workforce and whether compensation plays a role in the specialty choices of new practitioners.

Equity The level of revenues physicians bring in is a function of price and quantity—the fees paid for services and the number of services furnished. Under Medicare's physician fee schedule, fees are tightly controlled. The fee schedule's RVUs are determined according to statutory requirements. Any change in them must be budget neutral. The fee schedule's conversion factor changes according to a statutory formula: the SGR. Such a payment system can lead to compensation levels that are skewed in favor of some physicians at the expense of others.

Mispricing is one risk. In previous work, the Commission made recommendations on improving the process through which CMS reviews the fee schedule's relative values for accuracy (Medicare Payment Advisory Commission

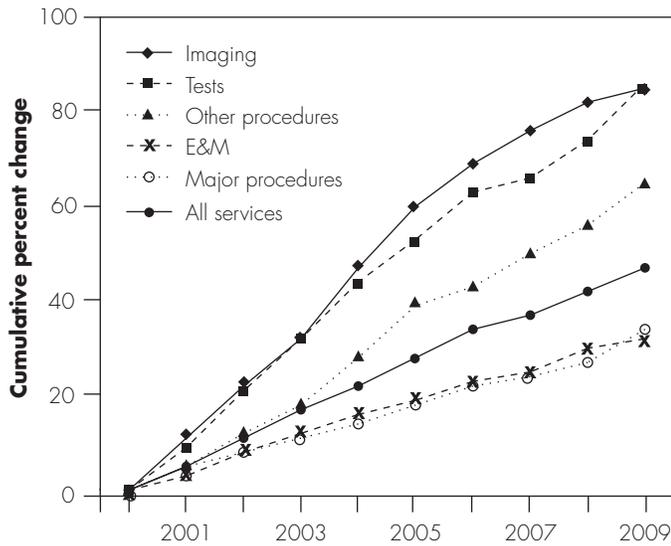
2006). Since then, CMS and the AMA Specialty Society Relative Value Scale Update Committee have improved the review process and revalued some services. These activities may have had an effect on some of the disparities in compensation between primary care and other specialties. However, it is likely that mispricing of services in the fee schedule remains a problem. Contract research for CMS and the Department of Health and Human Services Assistant Secretary for Planning and Evaluation has shown that at least some of the fee schedule's time estimates are likely too high (Cromwell et al. 2010, Cromwell et al. 2007, McCall et al. 2006). The question now is whether the problem is limited to a subset of services or whether it is more widespread and whether levels of payment—one service compared with another—are affected. The accuracy of fees can also depend on the circumstances in which a service is furnished. For instance, the Government Accountability Office has found that the fee schedule does not adequately account for efficiencies that occur when a physician furnishes multiple services for the same patient on the same day (Government Accountability Office 2009a). The concern is that mispricing has contributed to inequities in physician compensation.

The ability—or inability—of some practitioners to generate volume poses another risk to the equitable distribution of payments. For instance, primary care practitioners who focus on E&M services have limited opportunity to increase the number of services they furnish. The main component of E&M services is face-to-face time spent with patients, making it more difficult to fit more visits into a day's schedule. By contrast, imaging, tests, and procedures other than major surgical procedures have all grown at much faster rates than other services (Figure 4-3, p. 90). The specialists who furnish these high-growth services are generally the ones at the high end of the compensation scale. This finding is not surprising under an FFS payment system that rewards practitioners for generating volume, regardless of clinical value.

Future of the practitioner workforce The Commission remains concerned that the specialty mix of physicians and other health professionals coming through the graduate medical education pipeline is not well matched to the needs of an efficient, high-quality, high-value delivery system. As discussed in our June 2009 report, a reformed delivery system that focuses on effective chronic care and preventing avoidable hospitalizations will require primary care providers who can function with other health care professionals and specialists as part of a patient's health care team (Medicare Payment Advisory Commission

FIGURE 4-3

Volume of physician services per beneficiary has grown, 2000-2009



Note: E&M (evaluation and management).

Source: MedPAC analysis of claims data for 100 percent of Medicare beneficiaries.

2009). These primary care providers are essential to a well-functioning delivery system, yet the mix of specialists and primary care graduates from residency programs has been tilting more toward specialists (American College of Physicians 2006, Colwill et al. 2008). Specific to the issue of practitioner compensation, a change in the distribution of compensation across specialties could improve the mix of practitioners. Some research has shown that compensation is an important predictor of medical student specialty choice (Bodenheimer et al. 2007, Leigh et al. 2010). We note, however, that compensation is not the only factor influencing specialty choice and that other factors—such as the ability to master an area of clinical practice—may be more important factors (Borman et al. 2010).

Although the share of U.S. medical students choosing careers in primary care has fallen dramatically in recent years because a growing share is choosing to subspecialize or become hospitalists after residency, the numbers of nurse practitioners and physician assistants have increased (Bodenheimer 2006, Naylor and Kurtzman 2010). In its recent report, the Institute of Medicine called for an expansion of nurses' scope of practice in primary care to help address our delivery system's need for primary care professionals (Institute of Medicine 2010).

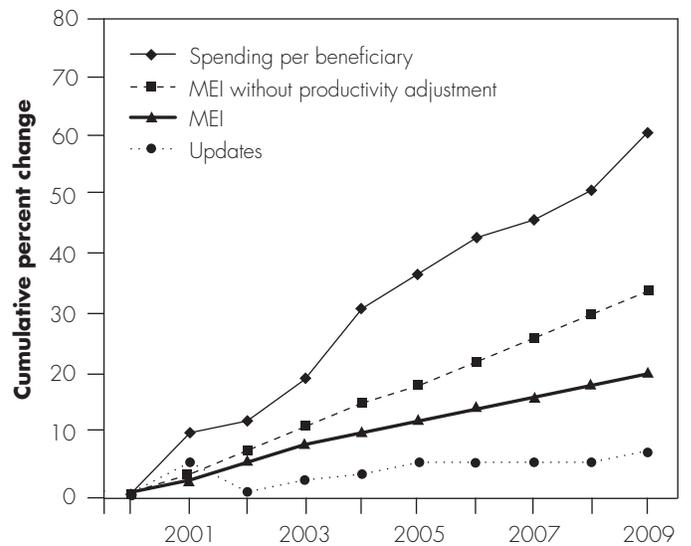
Certain physicians and other health professionals are eligible for payment bonuses from Medicare

Across most sectors, we consider provider payments in our analysis of payment adequacy. Earlier in this chapter, we discussed the payment cuts scheduled for 2012 under the SGR. Aside from these cuts, PPACA and previous legislation have established bonus payments available to certain physicians and other health professionals. They are listed below:

- Since 1991, physicians and other health professionals who practice in designated health professional shortage areas (HPSAs) automatically receive a 10 percent bonus (relative to the fee schedule amount) on all Medicare services they provide.²¹
- Starting in 2011 and ending in 2016, primary care practitioners will receive a 10 percent increase in payments for selected Medicare services, as will general surgeons practicing in HPSAs. For primary care practitioners, the increase complements other, recent budget-neutral policy changes implemented through regulation (see text box).

FIGURE 4-4

Because of volume growth, spending has increased faster than input prices and the updates, 2000-2009



Note: MEI (Medicare Economic Index).

Source: 2010 trustees' report, IHS Global Insight historical data through second quarter of 2010, and Office of the Actuary 2010.

Recent regulatory increases in payments for primary care under the physician fee schedule

- For 2007, CMS's five-year review—a review of the fee schedule's relative values for physician work—resulted in payment increases for most primary care services.
- Also for 2007, CMS changed its method for determining the relative value of a fee's practice expense component and started a four-year transition to the new values. This methodologic refinement—intended to improve payment accuracy—resulted in increased practice expense values for some types of services, including primary care.
- Starting in 2010, CMS no longer recognizes the billing codes for consultation services. To make the change budget neutral, the agency has allocated the work relative values for consultations to some

primary care services—office visits and initial nursing facility visits—and to initial hospital visits.

- Also for 2010, CMS started a four-year transition to practice expense relative values that incorporate data from the Physician Practice Information Survey. During the transition, practice expense relative values are decreasing for some services and increasing for others, including primary care.

Comparing 2006—the year before any of these changes in fee schedule relative values—and 2011, payment rates for primary care services have gone up by 22.5 percent. Of that total, payment updates that apply to all services account for 2.9 percentage points. The remaining 19.6 percentage points are due to changes in relative values. ■

- Under the Physician Quality Reporting System (PQRS), physicians and other health professionals may qualify for a 1 percent bonus on all Medicare services they provide in 2011 and a 0.5 percent bonus in 2012 through 2014. Starting in 2015, those who do not satisfactorily report PQRS measures will be subject to a financial penalty starting at 1.5 percent of their Medicare services.
- The electronic health record (EHR) incentive program provides payments to physicians when they adopt EHRs and demonstrate their use in specified ways to improve quality, safety, and effectiveness of care. Physicians may receive up to \$44,000 over five years, starting with \$18,000 in 2011. EHR bonuses for physicians in HPSAs are 10 percent higher. Starting in 2015, eligible physicians who do not satisfy the EHR criteria will be subject to a financial penalty starting at 1 percent of their Medicare services.
- Prescribing physicians and health professionals who do not participate in the EHR incentive program are eligible for an electronic prescribing (eRx) bonus of 1 percent on all their Medicare services if they use a qualified eRx system. This program began in 2009. Starting in 2012, eligible professionals who have not yet satisfied the eRx criteria will be subject to a financial penalty starting at 1 percent of their Medicare services.

Input costs for physician and other health professional practices are expected to increase in 2012

CMS's 2012 forecast of the MEI—a measure of changes in the market basket of input prices for physician and other health professional services, adjusted for productivity growth in the national economy—is revised quarterly and has ranged from 1.0 percent (most recent) to 0.7 percent. For these forecasts, CMS collects pricing data from various data sets and surveys. Additionally, CMS calculates a weighted average of expected input price changes from survey data for 2006 collected by the AMA in 2007 and 2008. These weights were updated recently in CMS's final rule.

Medicare's total payments to physicians and other health professionals have increased faster than both the MEI and updates to the fee schedule's conversion factor (Figure 4-4). During the 10-year period ending in 2009, the updates rose 7 percent cumulatively while the MEI rose 20 percent cumulatively. Factoring out the productivity adjustment in the MEI, we see that input prices rose 34 percent. Note, however, that over the same 10-year period, Medicare spending for physician and other health professional services—per beneficiary—increased by 61 percent. Volume growth accounts for the difference between the fee-schedule updates and spending growth.

Aggregate Medicare revenues to practices from this spending growth are a function of volume growth and fee-schedule updates.

How should Medicare payments change in 2012?

In consideration of the expected input cost growth described above and our analysis of other payment adequacy indicators, the Commission recommends a modest update for physician and other health professional services in 2012. We summarize this analysis and recommendation below.

Update recommendation

Our analysis of the most recently available data finds that, overall, Medicare payments for physician and other health professional services are adequate. Access, supply, quality, and volume measures, as well as indirect measures of financial performance, suggest that most Medicare beneficiaries are able to obtain physician and other health professional services with few or no problems. Certain market areas, however, may be experiencing more access problems due to factors unrelated to Medicare—or even private—payment rates, such as relatively rapid population growth. Although a relatively small share of beneficiaries report major problems finding a primary care physician, these beneficiaries' experiences are troublesome. The issue of access to primary care is a serious concern not only to the beneficiaries who are personally affected but also to the functioning of our health care delivery system. The Commission will continue examining multiple approaches for improving Medicare's payment policies to promote primary care.

In this report, we recommend that the Congress change current law to update the physician fee schedule conversion factor for 2012 by 1.0 percent. In making this update recommendation, the Commission takes into account three factors that summon the need to maintain cost pressures. First, the Commission strongly promotes the principle that Medicare's payment systems should encourage efficiency in the provision of Medicare services. Competitive markets demand continual efficiency improvements from the workers and firms who pay the taxes used to finance Medicare. Maintaining cost pressure is a key to achieving efficiency improvements. A second consideration that calls for constraint is the impact on beneficiaries' out-of-pocket spending liability. Updates

for physician services carry with them increases to beneficiaries' cost-sharing and premium amounts. Third, the Medicare program faces fiscal sustainability problems, which require committed efforts to resolve if Medicare spending growth is to be slowed.

RECOMMENDATION 4

The Congress should update payments for physician fee schedule services in 2012 by 1 percent.

RATIONALE 4

Our analysis of the most recently available data finds that, overall, Medicare payments for physician and other health professional services are adequate. Access, supply, quality, and volume measures suggest that most Medicare beneficiaries are able to obtain physician services with few or no problems. In our 2010 patient survey, Medicare beneficiaries (age 65 or older) were more likely to report better access to physicians than privately insured individuals (age 50 to 64).

IMPLICATIONS 4

Spending

- Relative to current law, this recommendation is estimated to increase federal program spending by more than \$2 billion in the first year and by more than \$10 billion over five years. Enactment of any positive update for 2012 would substantially increase Medicare spending relative to current law, because current law under the SGR system calls for negative updates in 2012 and 2013.

Beneficiary and provider

- Relative to current law, the update recommendation would increase Part B premiums and coinsurance liability amounts. Payment increases for physician and other health professional services would maintain both provider willingness to serve Medicare patients and beneficiary access to their services.

Future work

Two areas of future analysis for the Commission include enhancing beneficiaries' access to high-quality primary care and SGR payment policies.

While our analysis of payment adequacy finds that access to physician and other health professional services is good on a national level, a small share of beneficiaries

Summary of health workforce and primary care provisions in the Patient Protection and Affordable Care Act of 2010

- Establishes a National Health Care Workforce Commission, which would report and make recommendations to the Congress and the Administration on the current state and projected needs of the U.S. health care workforce (Section 5101).
- Creates a competitive grant program for states to develop workforce planning strategies (Section 5102).
- Charges Health Resources and Services Administration's National Center for Health Care Workforce Analysis with data collection, analysis, and reporting on workforce programs and establishes state and regional centers for health workforce analysis (Section 5103).
- Reauthorizes and increases funding for several Public Health Service Act programs including Title VII and Title VIII, makes available increased funding for the National Health Service Corps, and establishes scholarship and loan repayment programs for a range of health care and public health professionals (Sections 5201 to 5207, and Sections 5308 to 5313).
- Establishes a primary care extension program through the Agency for Healthcare Research and Quality to educate primary care providers about preventive medicine, health promotion, chronic disease management, mental health service, and evidence-based therapies (Section 5405).
- Authorizes grants to geriatric education centers to support training for clinical faculty and family caregivers in geriatrics, chronic care management, and long-term care (Section 5305).
- Authorizes development grants and payments to support teaching health centers as community-based, ambulatory patient care centers eligible for sponsoring physician residency programs in primary care (Section 5508).
- Directs the Secretary to redistribute 65 percent of currently unused residency slots and directs 75 percent of those slots for training primary care and general surgery and to states with the lowest resident physician-to-patient ratios, to states with the highest ratio of the population living in a health professional shortage area relative to the general population, and to states with rural hospitals (Section 5503).
- Modifies rules governing indirect medical education to promote resident training in ambulatory settings and in didactic and scholarly activities (Sections 5504 and 5505).
- Directs the Secretary to establish a demonstration program for hospitals to increase graduate nurse education training under Medicare (Section 5509).
- Provides a 10 percent payment bonus to qualified primary care practitioners and general surgeons (pertains only to general surgeons in health professional shortage areas) for certain services provided under Medicare; makes Medicaid's payments for primary care services match Medicare's (Section 5501).
- Creates Center for Medicare and Medicaid Innovation to research, develop, test, and expand innovative payment and delivery service models, including the medical home (Section 3021). ■

continue to report major problems finding a primary care physician. The issue of access to primary care physicians is a serious concern not only to the beneficiaries who are personally affected but also to the functioning of our health care delivery system. PPACA contains several provisions to enhance primary care, including increasing Medicare payments for primary care services provided by primary care practitioners (see text box). This policy

marks an important step toward ensuring beneficiaries' access to primary care, but more levers should be explored. For example, it may be useful to consider ways to maximize the skills and roles that physicians and health professionals should take in delivering primary care, particularly for the elderly and disabled population. With a growing number of advance practice nurses, the Institute of Medicine recently called for an expansion of nurses'

scope of practice in primary care to address the need for primary care providers (Institute of Medicine 2010). Other payment approaches to explore may include examining ways to reimburse for patient–clinician communication when it avoids the need for office visits.

With respect to the current SGR system, the Commission recognizes the mounting frustration of physicians, other health professionals, and their patients stemming from the uncertainty of future Medicare payments and the size of looming payment cuts. Often referred to as “temporary fixes,” legislative SGR overrides have been covering relatively small periods of time. While these stop-gap

measures have averted payment cuts, their short-term nature has become problematic for providers and burdens CMS’s resources. In addition, some of these overrides have contributed to the amount of dollars that need to be recouped in accordance with the SGR formula.

In future work, the Commission will examine expenditure target policies and the budgetary issues they carry. We will discuss ways the current SGR may be adjusted to achieve desired policy goals, such as equitable compensation among physician specialties, access to primary care, accountability for patient health, and efficient Medicare spending. ■

Endnotes

- 1 See http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_Physician.pdf.
- 2 The 2010 survey included an oversample of African Americans, Hispanics, and other minorities—including Native Americans, Alaskan Natives, Asian Americans, and Hawaiian and Pacific Islanders. All respondents had the opportunity to take the survey in English or Spanish.
- 3 Within that population, our survey results do not distinguish Medicare FFS enrollees from those in Medicare Advantage (MA) plans because of the technical difficulty in obtaining reliable self-identification of FFS or MA enrollment from surveyed individuals. Similarly, we do not distinguish by type of private coverage among the non-Medicare population in our survey.
- 4 If physicians who were in practices that no longer accepted any new patients (regardless of insurance type) were excluded from this calculation, then the share of physicians accepting new Medicare patients would increase to 96 percent.
- 5 These percentages include practices with potentially small shares of Medicare patients, such as pediatrics.
- 6 See http://www.medpac.gov/documents/Oct10_RetainerBasedPhysicians_CONTRACTOR_CB.pdf.
- 7 In 2009, 97 percent of allowed charges were for services provided by participating physicians, another 2 percent were for services provided by nonparticipating physicians who decided to accept assignment. Only 0.7 percent of allowed charges were for services provided by nonparticipating physicians who did not accept assignment.
- 8 Participation agreements do not require physicians to accept new Medicare patients.
- 9 Within the colonoscopy type of service, there are two general categories of services: diagnostic colonoscopy and screening colonoscopy. The volume of services fell in both of these categories. However, within screening colonoscopy, there was a 3.8 percent increase in the volume per beneficiary of screening colonoscopy for high-risk individuals.
- 10 A procedure with a global surgical period is one for which Medicare pays a bundled fee for preoperative visits, the procedure itself, and postoperative hospital and office visits. The duration of a global surgical period is the typical number of days during which the bundled services are furnished.
- 11 The 2009 growth rate for these services includes—but is not limited to—rapid growth in CT guidance for radiation therapy.
- 12 A more detailed description of the therapy caps can be found at: www.medpac.gov/documents/MedPAC_Payment_Basics_10_OPT.pdf.
- 13 Although allowed amounts include patient cost-sharing liabilities, they do not include balance billing amounts that would exceed the fee-schedule amounts.
- 14 Our analysis relies on data from one large national insurer to determine a national average of the relationship between Medicare and private PPO payer rates. While we report a national average, the data show that payment rates vary substantially from one geographic area to another, within geographic areas, across providers within a given market, and by the type of service across and within markets.
- 15 This survey predated increases in payment for primary care and other services discussed later in this chapter. Those increases have included the last three years of the transition to a new method for determining relative values for practice expense, a change in billing for consultation services, and a transition to practice expense relative values that incorporate data from the Physician Practice Information Survey. In addition, payment of a 10 percent bonus for eligible primary care practitioners and general surgeons (general surgeons practicing in health professional shortage areas) started on January 1, 2011.
- 16 In simple terms, simulated compensation was calculated in two steps. Step 1 was annual total RVUs for the services furnished by a physician multiplied by the Medicare conversion factor. Step 2 was the result of Step 1 multiplied by a ratio that was the physician’s actual compensation divided by collections (revenues) from the physician’s professional services and collections from other sources attributable to the physician such as laboratory services and injectable drugs. Further details are in the contractor’s report.
- 17 The 12 percent difference between simulated compensation and actual compensation does not mean that Medicare’s payments for physician services are 12 percent lower than private payers’ payments for those services. The compensation estimates include compensation attributable to physician services and to services other than physician services, such as laboratory services and injectable drugs. In addition, the comparison is simulated Medicare compensation relative to actual compensation that is attributable to private payers’ payments but also some Medicare payments.

- 18 Our contractor noted that estimates of hours worked from the MGMA survey are lower than estimates from other sources such as the Physician Practice Information Survey. However, after comparing data from different surveys on physician hours worked, the contractor found very little systematic variation across specialties. From this finding, the contractor concluded that the MGMA data may produce higher absolute compensation per hour but that the data do not affect analysis of relative hourly compensation across specialties.
- 19 The nonsurgical, procedural specialties in the analysis are cardiology, dermatology, gastroenterology, and pulmonary medicine.
- 20 The primary care specialties in the analysis are family medicine, internal medicine, and general pediatrics.
- 21 This bonus started at 5 percent in 1989 and was limited to rural areas. In 1991, the bonus payment was raised to 10 percent and urban HPSAs were included.

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CHAPTER

5

Ambulatory surgical centers

R E C O M M E N D A T I O N

- 5** The Congress should implement a 0.5 percent increase in payment rates for ambulatory surgical center services in calendar year 2012 concurrent with requiring ambulatory surgical centers to submit cost and quality data.

COMMISSIONER VOTES: YES 15 • NO 1 • NOT VOTING 0 • ABSENT 1

Ambulatory surgical centers

Chapter summary

Ambulatory surgical centers (ASCs) furnish outpatient surgical services to patients not requiring hospitalization and for whom an overnight stay is not expected after surgery. In 2009,

- ASCs served 3.3 million fee-for-service (FFS) Medicare beneficiaries, an increase of 1.2 percent over 2008;
- there were 5,260 Medicare-certified ASCs, an increase of 2.1 percent (109 ASCs) over 2008; and
- Medicare combined program and beneficiary spending on ASC services was \$3.2 billion, an increase of 5.1 percent per FFS beneficiary over 2008.

Assessment of payment adequacy

Most of the available indicators of payment adequacy for ASC services, discussed below, are positive and exhibit little change from 2008. The Patient Protection and Affordable Care Act of 2010 did not change the basic structure of the ASC payment system, and Medicare still does not require ASCs to submit cost or quality data.

Beneficiaries' access to care—Our analysis of facility supply and volume of services indicates that beneficiaries' access to ASC care has generally been adequate.

In this chapter

- Are Medicare payments adequate in 2011?
.....
- How should Medicare payments change in 2012?
.....

- **Capacity and supply of providers**—From 2004 through 2009, the number of Medicare-certified ASCs grew by an average annual rate of 5.1 percent. However, the growth slowed to 2.1 percent in 2009. The slower growth in 2009 may reflect the downturn in the U.S. economy. Also, the ASC payment system underwent a substantial revision in 2008 (see online Appendix A from Chapter 2C of our March 2010 report at http://medpac.gov/chapters/Mar10_Ch02C_APPENDIX.pdf), and investors may be responding to the large change in payment rates that occurred under that revision.
- **Volume of services**—From 2004 through 2009, the volume of services per beneficiary grew by an average annual rate of 8.1 percent; in 2009, volume increased by 3.4 percent.

Quality of care—CMS does not require ASCs to submit data on the quality of care they provide. Consequently, we do not have sufficient data to assess ASCs' quality of care.

Providers' access to capital—ASCs' access to capital appears to be adequate as the number of ASCs has continued to increase.

Medicare payments and providers' costs—From 2004 through 2009, ASCs' Medicare revenue increased from \$2.5 billion to \$3.2 billion. Also, from 2004 through 2008, Medicare payments per FFS beneficiary increased at an average annual rate of 7.2 percent and in 2009 by 5.1 percent. ASCs do not submit data on the cost of care they provide to the Medicare program. Therefore, we cannot calculate a margin as we do in other sectors to assist in assessing payment adequacy. ■

Background

An ambulatory surgical center (ASC) is a distinct entity that furnishes outpatient surgical procedures to patients who do not require an overnight stay following the procedure. Most ASCs are freestanding facilities rather than part of a larger facility, such as a hospital. About one-quarter of ASCs in 2008 were jointly owned by physicians and hospitals (Medical Group Management Association 2009). In addition to receiving ambulatory surgical procedures in ASCs, beneficiaries may also receive such procedures in hospital outpatient departments (HOPDs) and, in some cases, physicians' offices.

Since 1982, Medicare has made payments for surgical procedures provided in ASCs. Physicians who perform procedures in ASCs or in other facilities receive separate payments for their professional services. In addition, about 90 percent of ASCs have at least one physician owner (Ambulatory Surgery Center Association 2008). Physicians who perform surgery in an ASC that they own receive a share of the ASC's facility fees in addition to their professional fees.

To receive payments from Medicare, ASCs must meet Medicare's conditions of coverage for ASCs, which specify standards for administration of anesthesia, quality evaluation, operating and recovery rooms, medical staff, nursing services, and other areas.

Medicare pays for a bundle of facility services provided by ASCs, such as nursing, recovery care, anesthetics, and supplies. This payment system underwent substantial revisions in 2008 (see online Appendix A from Chapter 2C of our March 2010 report at http://medpac.gov/chapters/Mar10_Ch02C_APPENDIX.pdf). The most significant changes included a substantial increase in the number of surgical procedures covered under the ASC payment system, allowing ASCs to bill separately for certain ancillary services, and large changes in payment rates for many procedures. To help ASCs adjust to the changes in payment rates, CMS phased in the new payment system over four years, from 2008 through 2011; 2011 is the first year ASC payment rates will be based entirely on the revised rates. Beneficiaries are responsible for paying 20 percent of the ASC payment rate.

Medicare covers about 3,500 surgical procedures under the ASC payment system. For most covered surgical procedures, the relative weight is based on its relative weight under the outpatient prospective payment system (PPS)—

the system Medicare uses to set payments for most services furnished in HOPDs. This linkage to the outpatient PPS is consistent with a previous Commission recommendation to align the relative weights in the outpatient PPS with the ASC payment system (Medicare Payment Advisory Commission 2004). For most covered surgical procedures, the payment rate is the product of its relative weight and a conversion factor set at \$41.94 in 2011. Because the outpatient PPS conversion factor for 2011 is \$68.88, payment rates are lower in ASCs than in HOPDs.

The reason for the difference in conversion factors is that CMS set the ASC conversion factor so that total ASC payments in 2008 would equal what the program spent on ASC services in 2007, the year before CMS implemented the revised ASC payment system. In the outpatient PPS, CMS sets the conversion factor so that payments in that system equal what the program spent on hospital outpatient services the year before CMS implemented the outpatient PPS. CMS updates both the ASC and outpatient PPS conversion factors over time to reflect changes in input prices. Because of the lower payment rates in ASCs, movement of surgical services from HOPDs to ASCs can reduce aggregate program spending and beneficiary cost sharing provided that the growth of ASCs does not result in an increase in the overall number of surgical services.

Lower payment rates for ASCs relative to HOPDs are appropriate because, according to prior Commission analysis, ASCs likely incur lower costs than HOPDs, as HOPDs must meet additional regulatory requirements and treat patients who are more medically complex (Medicare Payment Advisory Commission 2003, Medicare Payment Advisory Commission 2004). Unlike ASCs, hospitals are subject to the Emergency Medical Treatment and Active Labor Act, which requires outpatient departments to stabilize and transfer patients who believe they are experiencing a medical emergency, regardless of the patients' ability to pay. In addition, patients treated in HOPDs are, on average, more medically complex than patients treated in ASCs, and these more complex patients are likely more costly (Medicare Payment Advisory Commission 2003). A comparison of ASC costs and HOPD costs by the Government Accountability Office confirmed that ASC costs are, on average, lower than HOPD costs (Government Accountability Office 2006). However, it is not clear how much lower ASC payment rates should be relative to HOPD rates because we lack adequate cost data from ASCs to make that determination.

An important exception to the link between the relative weights in ASCs and HOPDs is the procedures that are

performed predominantly in physicians' offices and that were first covered under the ASC payment system in 2008 or later. In ASCs, payment for these "office-based" procedures is the lesser of the amount derived from the outpatient PPS relative weights or the nonfacility practice expense amount from the Medicare physician fee schedule (MPFS). CMS set this limit on the rate for office-based procedures to prevent migration of these services from physicians' offices to ASCs for financial reasons. Because CMS updates payment rates in the outpatient PPS and the MPFS independently of each other, it is possible for the ASC payment rate for an office-based procedure to be based on the outpatient PPS rate in one year and on the MPFS rate the next year (or vice versa).

The ASC payment system generally parallels the outpatient PPS in terms of which ancillary services are paid separately and which are packaged into the payment of the associated surgical procedure. Starting in 2008, ASCs receive separate payment for these ancillary services:

- radiology services that are integral to a covered surgical procedure if separate payment is made for the radiology service in the outpatient PPS,
- brachytherapy sources implanted during a surgical procedure,
- all pass-through and non-pass-through drugs that are paid separately under the outpatient PPS when provided as part of a covered surgical procedure, and
- devices with pass-through status under the outpatient PPS.

The links between the ASC payment system, the outpatient PPS, and the MPFS raise broader questions about how Medicare should pay for the same services that are provided in different settings. Should Medicare pay the same amount regardless of where a service is delivered? If so, how should that amount be determined? Alternatively, should the payment vary based on the cost of efficient providers in each setting, with an adjustment for the quality performance of providers? The current ASC payment system exhibits elements of each approach. Payments for many office-based procedures performed in ASCs are equal to the nonfacility practice expense amount in the MPFS, and ASCs and HOPDs receive the same amount for pass-through drugs and devices. In contrast, payments for most ASC services are less than the comparable payment under the outpatient PPS.

Are Medicare payments adequate in 2011?

To address whether payments for the current year (2011) are adequate to cover the costs of efficient providers and how much payments should change in the coming year (2012), we examine several measures of payment adequacy. We assess beneficiaries' access to care by examining the supply of ASC facilities and changes over time in the volume of services provided, providers' access to capital, and change in revenue from the Medicare program. Unlike our assessments of other provider types, we could not use quality data in our analysis because CMS does not require ASCs to submit data on quality measures. Likewise, we cannot examine Medicare payments relative to providers' costs because CMS does not require ASCs to submit cost data.¹ Finally, we caution that the effect of Medicare payments on the financial health of ASCs is limited because, on average, Medicare spending accounts for only about 17 percent of an ASC's overall revenue (Medical Group Management Association 2009).²

Our results show that beneficiaries have at least adequate access to care in ASCs, although there is some variation among subgroups of beneficiaries (see text box). In addition, ASCs have adequate access to capital, and Medicare payments to ASCs have grown strongly. Together, these measures suggest that payment rates have been at least adequate.

Beneficiaries' access to care: Supply of ASCs and volume growth indicate access is adequate

Increases in the number of Medicare-certified facilities and volume of services provided to Medicare beneficiaries suggest growing access to ASCs. This growth may be beneficial to patients and physicians because ASCs can offer them convenience and efficiency relative to HOPDs—the sector with the greatest overlap of surgical services with ASCs. For patients, ASCs can offer more convenient locations, shorter waiting times, and easier scheduling relative to HOPDs; for physicians, ASCs may offer more control over their work environment, customized surgical environments, and specialized staff. In addition, Medicare has lower payment rates and beneficiaries generally face lower coinsurance in ASCs than in HOPDs. Therefore, as long as this growth in ASCs does not lead to inappropriate use of services, the Commission recognizes the benefits that ASCs offer.

Differences in types of patients treated in ambulatory surgical centers and hospital outpatient departments

There is evidence that ambulatory surgical centers (ASCs) treat different types of patients than hospital outpatient departments (HOPDs). ASCs are less likely than HOPDs to serve medically complex patients, Medicaid patients, African Americans, and Medicare beneficiaries who are older or eligible for Medicare because of disability.

Our analysis of Medicare claims from 2009 found that the following groups are less likely to receive care in ASCs than in HOPDs: Medicare beneficiaries who also have Medicaid coverage (dual eligibles), African Americans (who are more likely to be dual eligibles), beneficiaries who are eligible because of disability (under age 65), and beneficiaries who are age 85 or older (Table 5-1).^{3,4} The smaller share of disabled and older beneficiaries treated in ASCs may reflect the healthier profile of ASC patients relative to HOPD patients. In addition, the smaller share of African American patients in ASCs relative to HOPDs may be linked to where ASCs and hospitals are located.

Research by the Commission has shown that compared with HOPDs, ASCs treat Medicare patients who are less medically complex, as measured by differences in average risk scores (Medicare Payment Advisory Commission 2003).⁵ Under a contract with the Commission, RAND Health compared the characteristics of Medicare beneficiaries who had cataract surgery or a colonoscopy in an ASC with beneficiaries who received these procedures in an

TABLE 5-1

Medicare patients treated in ASCs differ from patients treated in HOPDs, 2009

Characteristic	Percentage of beneficiaries	
	ASC	HOPD
Medicaid status		
Not Medicaid	86.7%	78.0%
Medicaid	13.3	22.0
Race/ethnicity		
White	88.8	84.9
African American	6.6	10.0
Other	4.6	5.1
Age (in years)		
Under 65	13.3	20.8
65 to 84	79.2	68.4
85 or older	7.5	10.8
Sex		
Male	41.8	43.4
Female	58.2	56.6

Note: ASC (ambulatory surgical center), HOPD (hospital outpatient department). All of the differences between ASC and HOPD beneficiaries are statistically significant ($p < 0.05$). The analysis excludes beneficiaries who received services that are not covered in the ASC payment system.

Source: MedPAC analysis of 5 percent carrier and outpatient standard analytic claims files, 2009.

(continued next page)

From 2004 through 2008, the number of Medicare-certified ASCs increased by 5.8 percent per year. However, the growth rate slowed to 2.1 percent in 2009. This slow growth continued into 2010, as the number of ASCs increased by 0.6 percent to 5,291 during the first three quarters of 2010 (an annual growth rate of 0.8 percent). The relatively slow growth in 2009 and the first three quarters of 2010 may reflect the downturn in the economy that occurred in 2008 and 2009 and the relatively slow recovery from that downturn. The substantial changes to the ASC payment system that occurred in 2008 also may

have contributed to the slower growth, as investors may have waited to see how the new system affected the overall ASC market before deciding to open new facilities.

Capacity and supply of providers: Number of ASCs grew rapidly over last several years, but growth has slowed

The number of Medicare-certified ASCs has increased substantially over the last several years. From 2004 through 2009, an average of 307 new facilities entered the program each year, while an average of 66 closed

Differences in types of patients treated in ambulatory surgical centers and hospital outpatient departments (cont.)

HOPD. RAND found that ASC patients were less likely to have certain comorbidities, such as dementia and chronic obstructive pulmonary disease (Sloss et al. 2006). Sicker patients may be treated in HOPDs instead of ASCs because hospitals offer emergency services and access to onsite specialists if complications arise.

According to data from Pennsylvania on all patients, ASCs are less likely than HOPDs to serve Medicaid patients. In 2009, Medicaid patients accounted for 4.1 percent of diagnostic and surgical procedures in ASCs in Pennsylvania, compared with 11.0 percent of procedures in HOPDs (Pennsylvania Health Care Cost Containment Council 2010) (Figure 5-1).⁶ Commercially insured and Medicare patients represented a higher share of ASC procedures than HOPD procedures (87.6 percent vs. 79.5 percent). Although the Pennsylvania data may not be nationally

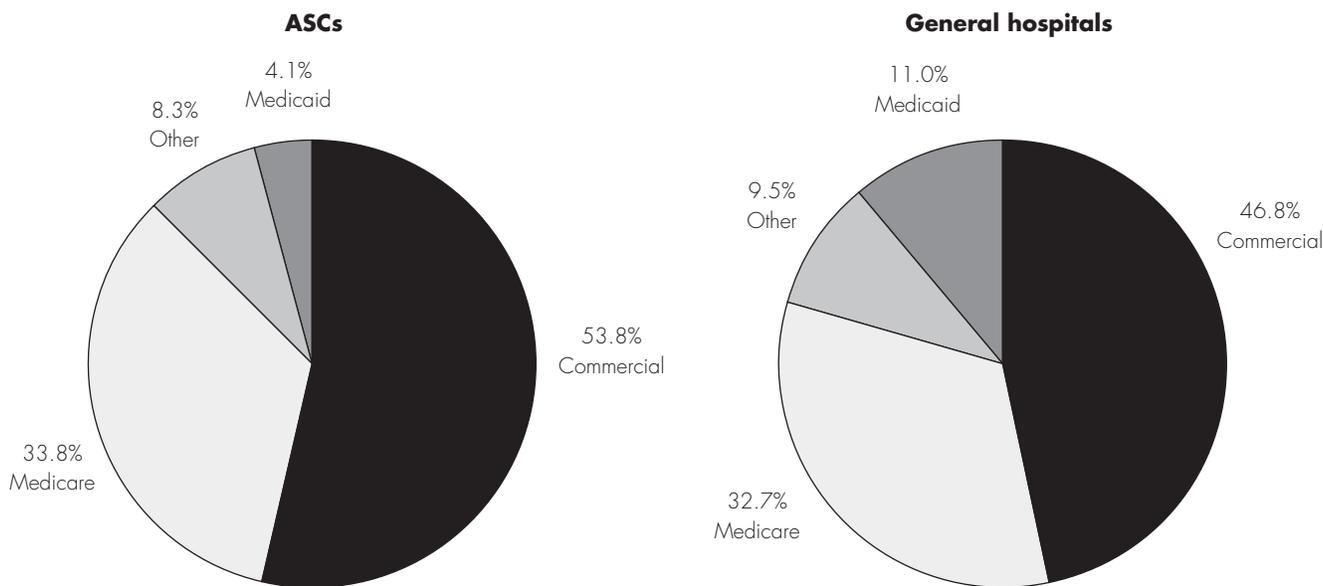
representative, national estimates from the National Survey of Ambulatory Surgery (NSAS), conducted by the Centers for Disease Control and Prevention (CDC), also show that ASCs treat a smaller share of Medicaid patients than hospitals. According to NSAS data compiled for the Commission by CDC, ambulatory surgery visits by Medicaid patients accounted for 3.9 percent of total visits to freestanding ASCs in 2006, compared with 8.1 percent of total visits to hospital-based surgery centers.⁷

Several factors could explain why ASCs treat a smaller share of Medicaid patients (including dual eligibles) than HOPDs. A study by Gabel and colleagues suggests that physicians refer their more lucrative patients to ASCs and the less lucrative ones to hospitals (Gabel et al. 2008). This study examined referral patterns for physicians in Pennsylvania who sent most of their

(continued next page)

FIGURE 5-1

Distribution of outpatient procedures by payer at ASCs and general acute care hospitals in Pennsylvania, fiscal year 2009



Note: ASC (ambulatory surgical center). Outpatient procedures include diagnostic and surgical services. Other payers include auto insurance, workers' compensation, and other government programs.

Source: Pennsylvania Health Care Cost Containment Council 2010.

Differences in types of patients treated in ambulatory surgical centers and hospital outpatient departments (cont.)

patients to physician-owned ASCs rather than HOPDs. These physicians were much more likely to refer their commercially insured and Medicare patients than their Medicaid patients to a physician-owned ASC. They sent more than 90 percent of their commercial and Medicare patients—but only 55 percent of their Medicaid patients—to an ASC instead of a hospital. ASCs' location decisions may also result in a smaller share of Medicaid patients; for example, they may

choose to locate in areas with a high proportion of commercially insured patients. In addition, many state Medicaid programs do not pay Medicare's cost sharing for dual eligibles if the Medicare rate for a service minus the cost sharing is higher than the Medicaid rate for the service (Medicare Payment Advisory Commission 2010a). If states do not pay the cost sharing for ASC services used by dual eligibles, ASCs could be discouraged from treating these patients. ■

or merged with other facilities (Table 5-2). The average annual growth rate during this period was 5.1 percent.

To provide a more complete picture of capacity in ASCs, we also examined the change in the number of operating rooms. From 2003 through 2009, the mean number of operating rooms per ASC increased slightly from 2.5 to 2.6, although the median number of operating rooms remained the same at 2. This finding indicates that the growth in the number of operating rooms has been similar to the growth in the number of ASCs.

Our analysis also indicates that ASCs are concentrated geographically. As of 2009, Arizona had the most ASCs per beneficiary followed by Washington, Idaho, and Maryland, with each state having more than 30 ASCs per 100,000 beneficiaries. Meanwhile New York had the fewest ASCs per beneficiary, followed by Vermont and West Virginia, with each state having fewer than 5 per 100,000. In addition, in 2009, most Medicare-certified ASCs were for profit and located in urban areas, a pattern that has not

changed over time (Table 5-3, p. 108). Beneficiaries who do not have access to an ASC may receive ambulatory surgical services in HOPDs and, in some cases, in physicians' offices. In addition, beneficiaries who live in rural areas may travel to urban areas to receive care in ASCs.

Steady growth in the number of Medicare-certified ASCs may indicate that Medicare's payment rates have been at least adequate, despite the fact that there were no positive updates to ASC payment rates from 2004 through 2009. However, Medicare payments are not a substantial source of revenue for ASCs. According to a survey conducted by the Medical Group Management Association, Medicare accounted for only 17 percent of ASC revenue, on average, in 2008 (Medical Group Management Association 2009). In addition, other factors have likely influenced the growth in the number of Medicare-certified ASCs:

- Changes in clinical practice and health care technology have expanded the provision of surgical procedures in ambulatory settings.

**TABLE
5-2**

Number of Medicare-certified ASCs has grown by 28 percent, 2004-2009

	2004	2005	2006	2007	2008	2009
Number of centers	4,106	4,404	4,654	4,932	5,151	5,260
New centers	369	355	332	347	273	164
Exiting centers	77	57	82	69	54	55
Net percent growth in number of centers from previous year	7.7%	7.3%	5.7%	6.0%	4.4%	2.1%

Note: ASC (ambulatory surgical center).

Source: MedPAC analysis of Provider of Services file from CMS, 2009.

TABLE 5-3**Most Medicare-certified ASCs are urban and for profit**

ASC type	2004	2009
Urban	87%	88%
Rural	13	12
For profit	96	96
Nonprofit	4	3

Note: ASC (ambulatory surgical center). Numbers may not sum to 100 percent due to rounding.

Source: MedPAC analysis of Provider of Services file from CMS, 2009.

- Medicare began covering colonoscopy for colorectal cancer screening in 1998, increasing beneficiary use of the service in ASCs (and other settings).
- ASCs may offer patients greater convenience than HOPDs in terms of better locations, the ability to schedule surgery more quickly, and shorter waiting times.
- For most procedures covered under the ASC payment system, beneficiaries' coinsurance is lower in ASCs than in HOPDs.⁸
- Physicians may find it more efficient to perform procedures in ASCs because they often have customized surgical environments and specialized staffing.
- Physicians who invest in ASCs can increase their revenue by receiving ASC facility payments. The federal anti-self-referral law (also known as the Stark Law) does not apply to surgical services provided in ASCs.
- Because physicians can probably perform more procedures in ASCs than in HOPDs in the same amount of time, they can earn more professional fees.

Number of services grew during 2004–2009; newly covered services contributed to growth in number of services during 2007–2009

Our examination of growth in service volume in ASCs focused on the number of surgical services provided per FFS beneficiary. We used this measure rather than aggregate service volume because enrollment in FFS Medicare has been declining in recent years due to large

increases in Medicare Advantage enrollment. We believe that growth in aggregate service volume would understate the extent to which FFS beneficiaries are receiving care in ASCs. Also, our analysis includes only surgical procedures that are covered under the ASC payment system, even though the ASC payment system now provides separate payment for some radiology services. We limited the analysis to surgical services because before 2008 the ASC payment system provided separate payment only for surgical procedures. From 2004 through 2009, the volume of surgical services per FFS beneficiary increased by an average of 8.1 percent per year (47 percent overall), including a 3.4 percent increase in 2009 over 2008 (Table 5-4).

The 2008 revision to the ASC payment system substantially increased the number of covered services, and these newly covered services contributed 41 percent of the overall volume growth from 2007 through 2009. We evaluated the effect of the increased number of covered services by breaking down the growth in service volume from 2007 through 2009 into two parts: the portion due to surgical services newly covered after 2007 (that is, Medicare began paying for these services in ASCs in 2008 or 2009) and the portion due to surgical services covered in both 2007 and 2009. Our analysis indicates that ASC service volume per FFS beneficiary increased by 6.6 percent per year from 2007 through 2009 (Table 5-4).⁹ Services newly covered in 2008 or 2009 accounted for 2.7 percentage points of the increase in service volume per

TABLE 5-4**Volume of ASC services per FFS beneficiary has continued to grow**

Time period	Average annual volume growth per FFS beneficiary
2004 to 2009	8.1%
2007 to 2009	6.6
2008 to 2009	3.4
Services covered in 2007	2.4
Services newly covered in 2008 and 2009	23.7

Note: ASC (ambulatory surgical center), FFS (fee-for-service).

Source: MedPAC analysis of 5 percent carrier standard analytic claims files, 2004, 2007, 2008, and 2009.

**TABLE
5-5**

Most frequently provided ASC services in 2009 were similar in 2007

Surgical service	2007		2009	
	Percent of volume	Rank	Percent of volume	Rank
Cataract surgery w/ IOL insert, 1 stage	19.9%	1	18.1%	1
Upper GI endoscopy, biopsy	7.9	2	8.0	2
Diagnostic colonoscopy	5.9	3	4.6	4
Colonoscopy and biopsy	5.5	4	5.5	3
After cataract laser surgery	5.4	5	4.4	5
Lesion removal colonoscopy	4.8	6	4.4	6
Injection spine: lumbar, sacral (caudal)	4.3	7	3.6	7
Inject foramen epidural: lumbar, sacral	3.1	8	3.6	8
Inject paravertebral: lumbar, sacral add on	2.9	9	2.8	9
Inject paravertebral: lumbar, sacral	1.9	10	1.9	11
Lesion remove colonoscopy	1.7	11	1.3	15
Colon cancer screen, not high-risk individual	1.7	12	1.3	16
Inject foramen epidural add on	1.6	13	2.0	10
Upper GI endoscopy, diagnosis	1.5	14	1.3	14
Colorectal screen, high-risk individual	1.4	15	1.6	12
Cystoscopy	1.3	16	1.2	17
Destruction paravertebral nerve, add on	1.1	17	1.4	13
Revision of upper eyelid	0.9	18	1.0	19
Cataract surgery, complex	0.9	19	1.2	18
Inject spine, cervical or thoracic	0.8	20	0.9	21
Total	74.6		70.0	

Note: ASC (ambulatory surgical center), IOL (intraocular lens), GI (gastrointestinal).

Source: MedPAC analysis of 5 percent carrier standard analytic claims files, 2007 and 2009.

FFS beneficiary, while services covered in both 2007 and 2009 accounted for the remaining 3.8 percentage points.¹⁰ Moreover, the volume of surgical services newly covered in 2008 or 2009 increased by 23.7 percent in 2009, but these services were still a small share—5.3 percent—of total ASC volume in 2009.

Although newly covered services contributed much of the growth in service volume after 2007, the services that have historically contributed the most to overall volume continued to comprise a large share of the total in 2009. For example, cataract removal with intraocular lens insertion had the largest volume in both 2007 and 2009, accounting for 20 percent of volume in 2007 and 18 percent of volume in 2009. Moreover, 19 of the 20 most frequently provided services in 2007 were among the 20 most frequently provided in 2009 (Table 5-5). For these 20 services, service volume per FFS beneficiary

increased by 3.2 percent per year from 2007 through 2009. However, these 20 services accounted for a smaller share of total volume in 2009 than in 2007: 70.0 percent versus 74.6 percent. The fact that the most frequently provided services make up a smaller share of the total than previously may indicate that ASCs are diversifying their operations in response to the payment and coverage revisions made in 2008.

Evidence that surgical services have migrated from HOPDs to ASCs

The growth in service volume provided in ASCs may reflect, in part, migration of services from HOPDs to ASCs. We compared volume growth for services provided in ASCs with the growth of ASC-covered services provided in HOPDs. We limited this analysis to services that were covered in the ASC payment system in 2004, as the inclusion of services covered in the outpatient

**TABLE
5-6**

Volume of surgical services grew faster in ASCs than in HOPDs, 2004-2009

Measure	Average annual percent change, 2004-2009	
	ASCs	HOPDs
Number of services per FFS beneficiary	6.8%	0.1%
Number of beneficiaries served	3.6	-1.7
Services per beneficiary served	3.1	1.8

Note: ASC (ambulatory surgical center), HOPD (hospital outpatient department), FFS (fee-for-service). To ensure comparability across sectors, the services analyzed consist of the same set of ambulatory surgical services. This set consists of services that were payable by Medicare when provided in an ASC in 2004.

Source: MedPAC analysis of 5 percent carrier and outpatient standard analytic claims files, 2004 and 2009.

PPS in 2004 that became covered in the ASC payment system after 2004 would have biased the results. From 2004 through 2009, the number of ASC-covered surgical services per FFS beneficiary grew by 6.8 percent per year in ASCs but by only 0.1 percent per year in HOPDs, which suggests that these surgical services may have migrated from HOPDs to ASCs during that period (Table 5-6). However, the difference in the rate of growth between ASCs and HOPDs narrowed in 2009: Surgical services per FFS beneficiary grew by 2.4 percent in ASCs compared with 1.1 percent in HOPDs. Therefore, the pace of migration of services from HOPDs to ASCs may be slowing.

Other data also suggest a shift in surgical services to ASCs. In Pennsylvania, ASCs' share of outpatient diagnostic and surgical procedures performed on all patients rose from 10 percent to 33 percent between 2000 and 2009. Moreover, most of the growth in outpatient diagnostic and surgical procedures during those years occurred in ASCs (Pennsylvania Health Care Cost Containment Council 2010).

However, factors other than migration to ASCs may have contributed to the relatively slow growth of surgical services in HOPDs. First, some HOPD services may have migrated to physicians' offices. Second, HOPDs may have found that services not covered under the ASC payment system, such as diagnostic imaging, are more profitable than surgical services. From 2004 through 2009, volume per FFS beneficiary of services not covered under the ASC payment system grew by 4.5 percent annually in HOPDs, compared with only 0.1 percent growth in ASC-covered services in HOPDs.¹¹

Assuming there is no change in aggregate service volume, a shift in surgical services from HOPDs to ASCs would slow the growth of program spending because (starting in 2008) the payment rates for all surgical services are lower in the ASC payment system than in the outpatient PPS.¹² Our analysis comparing the number of cataract surgeries with intraocular lens insertion provided in ASCs with those in HOPDs illustrates this point. We found that, from 2004 through 2009, the proportion of these procedures provided in ASCs increased from 59 percent to 69 percent. Meanwhile, the payment rate for these procedures in 2009 was \$965 in ASCs compared with \$1,605 in HOPDs.

Most ASCs have some degree of physician ownership; physicians' investment in ASCs could give them an incentive to perform more surgical services than they would if they provided outpatient surgery only in HOPDs. This additional volume could partially offset the effect of comparatively lower ASC rates on Medicare spending. Recent studies offer limited evidence that physicians with an ownership stake in an ASC perform a higher volume of certain procedures than nonowning physicians (Hollingsworth et al. 2010, Mitchell 2010, Strobe et al. 2009). One study, using a proxy measure of physician ownership of ASCs in Florida, found that physicians who invested in ASCs increased their volume of four common surgical procedures in all settings more rapidly than nonowning physicians (Hollingsworth et al. 2010).¹³ Although this study had limitations (it was based on a single state, used a proxy measure of physician ownership, and did not examine whether the additional procedures were inappropriate), it does suggest that the growth in ASCs may have resulted in greater overall volume of surgical procedures and not simply a migration of services

**TABLE
5-7****Medicare payments to ASCs have grown, 2004-2009**

	2004	2005	2006	2007	2008	2009
Medicare payments (billions of dollars)	\$2.5	\$2.7	\$2.8	\$2.9	\$3.1	\$3.2
Medicare payments per FFS beneficiary	\$73	\$78	\$85	\$90	\$97	\$102
Percent change per FFS beneficiary	10.9%	6.8%	8.5%	5.6%	8.1%	5.1%

Note: ASC (ambulatory surgical center), FFS (fee-for-service). Medicare payments include program spending and beneficiary cost sharing for ASC facility services.

Source: CMS, Office of the Actuary.

from one setting to another. Consequently, the reductions in Medicare spending due to lower payment rates in ASCs could be partially offset by a higher overall number of procedures.

Moreover, there is evidence that physician-owned specialty hospitals are associated with higher volume in a market. The Commission found that the entrance of a cardiac hospital in a market was associated with a greater increase in coronary artery bypass graft surgeries than would be expected (Medicare Payment Advisory Commission 2006). Specialty hospitals and ASCs are different, but the relationship between physician ownership and volume of services in specialty hospitals may be similar for ASCs. Because it is probably easier to generate demand for some of the low-risk procedures typically provided in ASCs than for the higher risk procedures furnished in specialty hospitals, the influence of physician ownership on volume may be stronger in ASCs than in specialty hospitals.

Providers' access to capital: Growth in number of ASCs and ASCs' financial performance suggest adequate access

Owners of ASCs require capital to establish new facilities and upgrade existing ones. The change in the number of ASCs is the best indicator available of ASCs' ability to obtain capital. The number of ASCs continued to increase in 2009, although at a slower rate than in prior years (Table 5-2, p. 107). The downturn in credit markets that occurred in the latter part of 2008, the economic slowdown that occurred in 2008 and 2009, and the sluggish pace of the economic recovery likely reduced providers' access to capital and may have had a role in slowing the growth in the number of new ASCs. Because these economic changes were unrelated to changes in Medicare payments, changes in access to capital in 2009 may not be a good indicator of Medicare payment adequacy. In addition,

Medicare accounts for a relatively small share of ASCs' overall revenue, and thus other factors may have a larger impact on access to capital for this sector.

Data on the financial performance of publicly traded ASCs also provide evidence of the sector's access to capital. From 2009 through 2010, earnings per share (EPS) of stock were expected to be largely unchanged for one of the two publicly traded ASC chains (Deutsche Bank 2010a). EPS for the other publicly traded chain was projected to fall by 8 percent from 2009 through 2010, but it is expected to increase by 11 percent in 2012 (Deutsche Bank 2010b). The earnings produced by these ASCs are one source of capital they can use to establish new facilities or expand existing ones. We caution, however, that the publicly traded ASC chains represent only 4 percent of all Medicare-certified ASCs, so their growth in earnings may not be indicative of the ASC industry.

Medicare payments: Payments have increased rapidly

In 2009, ASCs received about \$3.2 billion in payments from Medicare and beneficiaries' cost sharing (Table 5-7). From 2004 through 2008, spending per FFS beneficiary increased by an average of 7.2 percent per year and by 5.1 percent in 2009. From 2007 through 2009, spending per FFS beneficiary increased by 6.6 percent per year, with services newly covered after 2007 accounting for 2.4 percentage points of that increase; services covered in both 2007 and 2009 accounted for the remaining 4.2 percentage points.

Earlier, we showed that services newly covered after 2007 accounted for 41 percent of the service volume growth from 2007 through 2009. Some may be concerned that payment rates for these newly covered services are inadequate when they are equivalent to the nonfacility practice expense amount from the MPFS. However, the

growth in spending and volume in 2009 suggests that ASC payment rates for these newly covered services were at least adequate. It is plausible that ASCs will furnish more of the newly covered services in succeeding years as more ASCs modify their operations to furnish those services. As evidence, the volume of services that were newly covered after 2007 increased by 23.7 percent in 2009 (these services still represented a small share—5.3 percent—of total ASC volume in 2009).

How should Medicare payments change in 2012?

Our payment adequacy analysis indicates that the supply of Medicare-certified ASCs has increased, beneficiaries' use of ASCs has increased, and access to capital has been adequate. In addition, CMS increased the ASC conversion factor by 1.2 percent in 2010 and by 0.2 percent in 2011. The update for 2011 was based on a 1.5 percent increase in the consumer price index for all urban consumers (CPI-U), which CMS uses to update ASC rates, minus a 1.3 percent deduction for multifactor productivity growth, as mandated by the Patient Protection and Affordable Care Act of 2010 (PPACA). However, our information for assessing payment adequacy is limited because, unlike other facilities, Medicare does not require ASCs to submit cost or quality data.

Update recommendation

As the Commission considers an update to the ASC conversion factor for 2012, several goals should be balanced:

- Maintain beneficiaries' access to ASC services.
- Pay providers adequately.
- Hold down the burden on the beneficiaries, workers, and firms who finance Medicare.
- Maintain the sustainability of the Medicare program by appropriately restraining spending in the ASC sector.
- Keep providers under financial pressure to constrain costs.
- Require ASCs to submit cost and quality data.

Ensuring payment adequacy for ASCs is important to Medicare. The providers with the greatest overlap of surgical services with ASCs are HOPDs, and ASCs can offer advantages over HOPDs that are beneficial to maintain. Medicare's cost per service is lower in ASCs, and beneficiaries generally have lower coinsurance in ASCs than in HOPDs for each procedure covered under the ASC payment system (Government Accountability Office 2006). Also, ASCs likely offer efficiencies to beneficiaries and physicians that are not available in HOPDs. For patients, ASCs can offer more convenient locations, shorter waiting times, and easier scheduling; for physicians, they can offer customized surgical environments and specialized staffing. Thus, it is vital that ASCs be paid adequately to ensure that beneficiaries have this option available.

ASCs may still be in the process of adjusting to the revised payment system that CMS implemented in 2008. However, indications based on data from 2008 and 2009 suggest that the revised payment system is not detrimental and may be beneficial to ASCs' long-term future:

- ASCs' revenue and volume from Medicare-covered services increased from 2007 through 2009, and much of this growth was from services newly covered after 2007.
- The volume of services that were newly covered under the revised payment system increased by 23.7 percent in 2009, but we caution that these services made up only 5.3 percent of total surgical volume in ASCs in 2009.
- The number of ASCs increased in 2008, 2009, and the first three quarters of 2010 despite an economic slowdown and sluggish recovery.

However, to fully assess the effects of the revised payment system and make informed decisions about the ASC update, we need cost and quality data. Cost data are also needed to examine whether an alternative input price index would be an appropriate proxy for ASC costs or an ASC-specific market basket should be developed (Medicare Payment Advisory Commission 2010b). The Commission has previously expressed concern that the market basket index that CMS uses to update ASC payments (the CPI-U) may not reflect ASCs' cost structure (Medicare Payment Advisory Commission 2010b). Quality data would enable CMS to assess ASCs' performance and reward high-performing providers and allow beneficiaries to compare quality among providers.

RECOMMENDATION 5

The Congress should implement a 0.5 percent increase in payment rates for ambulatory surgical center services in calendar year 2012 concurrent with requiring ambulatory surgical centers to submit cost and quality data.

RATIONALE 5

On the basis of our payment adequacy indicators, the lack of data on the cost and quality of ASC services, and our concerns about the potential effect of ASC growth on overall program spending, we believe that a moderate update of 0.5 percent is warranted for 2012. The Commission does not support a positive update for ASC services unless the Congress requires ASCs to submit cost and quality data to CMS.

A number of factors indicate that Medicare payments to ASCs have been at least adequate. The Commission has found continued growth in the number of Medicare-certified ASCs as well as fairly strong growth in the volume of services to Medicare beneficiaries, number of beneficiaries receiving care in ASCs, and number of services per beneficiary treated in ASCs. This growth occurred despite no positive updates to ASC payment rates from 2004 through 2009. In addition, the number of services covered under the ASC payment system increased substantially in 2008, providing ASCs with an opportunity to enhance their Medicare revenue. Data suggest that ASCs are adapting to the opportunities presented by the increase in covered services. From 2007 through 2009, the newly covered services contributed 41 percent of the growth in service volume and 37 percent of the growth in spending. Moreover, in 2009, the volume per beneficiary of these newly covered services increased by 23.7 percent. Finally, the growth in the number of ASCs indicates they have at least adequate access to capital. Therefore, although we lack cost and quality data, the indicators we do have suggest that payments have been adequate.

It is vital that CMS begin collecting cost and quality data from ASCs without further delay. The lack of cost and quality data for ASCs is a major reason why our recommended update for ASCs is lower than that of the other two sectors that perform ambulatory surgeries—physicians' offices and HOPDs. Cost data from ASCs would enable analysts to determine the costs of an efficient provider, which would help inform decisions about the ASC update. All else being equal, continued growth in the volume of Medicare services, number of beneficiaries treated in ASCs, and number of Medicare-certified ASCs signal that payments are at least adequate. However, data

Medicare does not require ASCs to submit cost or quality data despite the Commission's recommendations in previous reports that ASCs submit such data to CMS (Medicare Payment Advisory Commission 2004, Medicare Payment Advisory Commission 2009, Medicare Payment Advisory Commission 2010b). Although CMS has the authority to require ASCs to submit quality data and to reduce the annual update by 2.0 percentage points for ASCs that fail to do so, the agency has decided to postpone collection of those data to allow ASCs time to adjust to the revised payment system and give CMS time to identify the most appropriate quality measures. CMS has also raised concerns about its resource constraints. We are encouraged, however, that CMS intends to propose an ASC quality measure reporting program in the 2012 proposed rule for HOPDs and ASCs (Centers for Medicare & Medicaid Services 2010).

Those who argue against ASCs submitting cost data contend that ASCs typically are relatively small facilities and have limited resources for supplying the data. The Commission maintains, however, that ASCs are businesses, and businesses typically keep records of their costs for purposes such as filing taxes. Moreover, other small providers, such as home health agencies and hospices, are required to submit cost data to CMS. Because collecting and vetting cost reports from the more than 5,000 Medicare-certified ASCs would be burdensome for CMS and because total Medicare spending on ASCs is small relative to other sectors (\$3.2 billion), CMS should streamline the collection of cost data relative to other sectors.

One data collection mechanism could be an annual survey of a random sample of ASCs—for example, a randomly selected set of facilities (with mandatory response). Advantages of a random sample are that all ASCs would not have to furnish data each year and that CMS would have to process data from only a fraction of them. A second mechanism could be cost reports from all ASCs that are more streamlined than hospital cost reports but still have enough information to fully assess the adequacy of ASC payment rates and develop an ASC market basket. An advantage of a streamlined cost report is that ASCs would not face the uncertainty presented by a random sample; each ASC would know that it has to submit a cost report each year. In addition, a complete set of cost data would be available for assessing payment adequacy and developing a market basket. The burden on CMS from auditing cost reports could be reduced by randomly selecting a fraction of all cost reports to audit.

on the financial performance of ASCs are important to give the Congress a more complete picture of payment adequacy. Cost data are also needed to examine whether an alternative input price index would be an appropriate proxy for ASC costs or whether an ASC-specific market basket should be developed. Not all ASCs would be required to submit cost information if CMS decided to collect cost data by surveying a random sample of ASCs.

Quality data from ASCs would enable CMS to assess performance and reward providers through payment adjustments based on quality and allow beneficiaries to compare providers and sites of care on the basis of quality. Because CMS will require time to develop a method for collecting cost and quality data and to select quality measures, we recognize that ASCs may not begin submitting data during 2012. However, the Congress should require ASCs to submit these data as soon as possible so that CMS can begin preparing to collect the data. We are encouraged that CMS intends to propose an ASC quality measure reporting program in the 2012 proposed rule for HOPDs and ASCs (Centers for Medicare & Medicaid Services 2010).

We believe that a 0.5 percent increase in ASC payments for 2012 will enable ASCs to continue furnishing services to beneficiaries, thereby maintaining beneficiaries' access to ASC care. Under current law established in PPACA, the update in 2012 for ASCs would be the currently projected increase in the CPI-U of 2.1 percent less the currently forecast multifactor productivity growth of 1.3 percent, for a net update of 0.8 percent (IHS Global Insight 2010).

In developing this recommendation, we considered the advantages that ASCs offer relative to HOPDs. Specifically, ASCs can offer greater efficiency and convenience to patients and providers. In addition, program spending and beneficiary cost sharing are generally lower in ASCs than in HOPDs on a per service basis. Therefore, migration of surgical services from HOPDs to ASCs could reduce aggregate program spending and beneficiary cost sharing.

However, such an impact on aggregate spending and cost sharing is not certain. If ASCs are drawing services away from settings where payment rates typically are lower, such as physicians' offices, the expansion in the number of ASCs would increase Medicare spending. In addition, HOPDs may be increasing their provision of nonsurgical services to offset the migration of surgical procedures to ASCs. Finally, the prevalence of physician ownership

of ASCs may give physicians an incentive to perform more surgical services than they would if they provided outpatient surgical services only in HOPDs. Recent studies offer limited evidence that physicians with an ownership stake in an ASC perform a higher volume of certain procedures than nonowning physicians. To the extent that physicians act on this financial incentive, a higher overall number of procedures could offset some of the reductions in program spending and beneficiary cost sharing that result from ASCs' lower payment rates and coinsurance.

IMPLICATIONS 5

Spending

- Because the projected update under current law for 2012 would be 0.8 percent, our recommended update of 0.5 percent would decrease federal spending by less than \$50 million in the first year and by less than \$1 billion over five years.

Beneficiary and provider

- Because of the growth in the number of Medicare-certified ASCs and the number of beneficiaries treated in ASCs, we do not anticipate that this recommendation will diminish beneficiaries' access to ASC services or providers' willingness or ability to provide those services.
- ASCs will incur some administrative costs to submit cost and quality data. ■

Endnotes

- 1 The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 eliminated a requirement that the Secretary collect cost data from ASCs every five years.
- 2 Medicare's share of total ASC revenue varies by type of ASC, ranging from 7 percent for ASCs that specialize in orthopedic procedures to 43 percent for ASCs that specialize in ophthalmology cases (Medical Group Management Association 2009).
- 3 Because ASCs are disproportionately located in some states (such as California, Florida, Georgia, Maryland, and Texas), we weighted beneficiaries so that in each state the percentage of beneficiaries receiving care in ASCs matched the national percentage. This process prevented idiosyncrasies in states that have high concentrations of ASCs from biasing the results. The analysis excluded beneficiaries who received services that are not payable by Medicare in ASCs.
- 4 Some of the discrepancies we see between the profile of ASC patients and the profile of HOPD patients are not as large as they appear because of interactions with other variables. For example, Medicare patients who also have Medicaid coverage (dual eligibles) are less likely to receive care in ASCs than in HOPDs. The smaller share of African Americans treated in ASCs is influenced by the fact that they are more likely than other races and ethnicities to be dual eligibles. If we control for differences in the percent of dual eligibles in ASCs and HOPDs, the share of African Americans treated in ASCs rises from 6.6 percent to 7.6 percent, compared with 10.0 percent in HOPDs.
- 5 Risk scores represent beneficiaries' expected service use given their health status relative to that of the national average beneficiary. For the 10 categories of procedures with the highest share of Medicare payments to ASCs, patients treated in ASCs in 1999 had somewhat lower average risk scores than HOPD patients.
- 6 These data are based on 262 ASCs and 171 hospitals.
- 7 The sample of freestanding ASCs in the NSAS includes facilities listed in the 2005 Verispan Freestanding Outpatient Surgery Center Database and Medicare-certified ASCs from CMS's Provider of Services file (Cullen et al. 2009). Thus, at least some of the ASCs in the sample may not be Medicare-certified ASCs.
- 8 By statute, coinsurance for a service paid under the outpatient PPS cannot exceed the hospital inpatient deductible (\$1,132 in 2011). The ASC payment system does not have the same limitation on coinsurance, and for a few services the ASC coinsurance exceeds the inpatient deductible. In these instances, the ASC coinsurance exceeds the outpatient PPS coinsurance.
- 9 Our analysis of service volume in 2009 included surgical procedures only, as nearly all these procedures had Current Procedural Terminology codes in the range 10000–69999. Our analysis of 2009 service volume did not include nonsurgical services, such as radiology services, brachytherapy sources, drugs, and pass-through devices. In addition, it did not include services that are packaged in 2009.
- 10 Office-based procedures accounted for most of the growth from newly covered services. These procedures accounted for 2.4 percentage points of the average annual volume increase from 2007 through 2009.
- 11 In Chapter 3 of this report, we report an average annual growth rate for hospital outpatient services from 2004 through 2009 of 4.3 percent. The growth rate of 0.1 percent for HOPD services that we report in this chapter is much lower because it refers to growth in surgical services covered in the ASC payment system as of 2004. The growth rate reported in Chapter 3 is for all surgical services and all nonsurgical services provided in HOPDs. Surgical services covered in the ASC payment system in 2004 make up only 5.6 percent of total volume in HOPDs.
- 12 Before 2008, ASC rates could be above, below, or equal to HOPD rates.
- 13 This study assumed that physicians who performed at least 30 percent of their outpatient surgeries at a given ASC within a year were ASC owners. The four procedures for which there was a significant relationship between ASC ownership and volume in the time series analysis were carpal tunnel release, cataract excision, colonoscopy, and knee arthroscopy. There was no significant relationship for myringotomy with tube placement.

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CHAPTER

6

Outpatient dialysis services

R E C O M M E N D A T I O N

- 6** The Congress should update the outpatient dialysis payment rate by 1 percent for calendar year 2012.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Outpatient dialysis services

Chapter summary

Outpatient dialysis services are used to treat the majority of individuals with end-stage renal disease (ESRD). In 2009, about 340,000 ESRD beneficiaries on dialysis were covered under fee-for-service (FFS) Medicare and received dialysis from more than 5,000 ESRD facilities. In that year, Medicare expenditures for outpatient dialysis services, including separately billable drugs administered during dialysis, were \$9.2 billion, an increase of 7 percent from 2008 spending levels.

Assessment of payment adequacy

Our payment adequacy indicators for outpatient dialysis services are generally positive.

Beneficiaries' access to care—Measures include examining the capacity and supply of providers, beneficiaries' ability to obtain care, and changes in the volume of services.

- **Capacity and supply of providers**—Dialysis facilities appear to have the capacity to meet demand. Growth in the number of dialysis treatment stations has generally kept pace with growth in the number of dialysis patients.
- **Volume of services**—Between 2008 and 2009, the number of FFS dialysis beneficiaries and dialysis treatments grew by 4 percent. Units per

In this chapter

- Are Medicare payments adequate in 2011?
.....
- How should Medicare payments change in 2012?
.....

treatment of erythropoietin, a drug that treats anemia and accounts for about 70 percent of dialysis drug spending, increased by 2 percent during this period.

Quality of care—Dialysis quality has improved over time for some measures, such as use of the recommended type of vascular access—the site on the patient’s body where blood is removed and returned during dialysis. Other measures suggest that improvements in quality are still needed. In particular, the proportion of all dialysis patients accepted for the registry on the kidney transplant waiting list remains low and mortality remains high.

Providers’ access to capital—Information from investment analysts suggests that access to capital for dialysis providers continues to be adequate. The number of facilities, particularly for-profit facilities, continues to increase.

Medicare payments and providers’ costs—In 2009, the Medicare margin for composite rate services and dialysis drugs for freestanding facilities was 3.1 percent. We project the Medicare margin for freestanding dialysis facilities will be 1.3 percent in 2011. This projection reflects the 2.5 percent update to the payment rate in 2011, the 2 percent reduction in total spending that the Medicare Improvements for Patients and Providers Act of 2008 mandated in 2011, the 3.1 percent transitional budget-neutrality adjustment, and a conservative behavioral offset to account for efficiencies in the use of drugs and laboratory tests that are anticipated under the new dialysis payment method.

Consistent with the Commission’s long-standing recommendation, a new outpatient dialysis prospective payment method began in 2011 that broadens the dialysis payment bundle and requires that CMS implement a quality incentive program beginning in 2012. As CMS phases in the new payment method, the Commission will continue its annual assessment of the adequacy of outpatient dialysis payments. In addition, the Commission will monitor key aspects of the new payment method, including paying for dialysis services in rural and other isolated areas, the availability of consumer information, and the effectiveness of the quality incentive program. ■

Dialysis treatment choices

Dialysis is a treatment to replace the filtering function of the kidneys when they fail. The two types of dialysis—peritoneal dialysis and hemodialysis—remove waste products from the bloodstream differently. Peritoneal dialysis uses the lining of the abdomen as a filter to clear wastes and extra fluid and is usually performed independently in the patient’s home. Hemodialysis uses an artificial membrane encased in a dialyzer to filter the patient’s blood. Although hemodialysis is usually provided in

dialysis facilities, it can also be done in the patient’s home. Each dialysis method has advantages and disadvantages—no one type of dialysis is best for everyone. People choose one type of dialysis over another for many reasons, including quality of life, patients’ awareness of different treatment methods and personal preferences, and physician training and recommendation. Some patients switch from one method to another when their conditions or needs change. ■

Background

End-stage renal disease (ESRD) is a chronic illness characterized by permanent irreversible kidney failure. ESRD patients include those who are treated with dialysis—a process that removes wastes and fluid from the body—and those who have a functioning kidney transplant. Because of the limited number of kidneys available for transplantation and of potential patients’ suitability for transplantation, 70 percent of ESRD patients undergo dialysis per year. The text box summarizes the two types of dialysis. Patients receive additional items and services related to their dialysis treatments, including dialysis drugs to treat conditions such as anemia and bone disease resulting from the loss of kidney function.

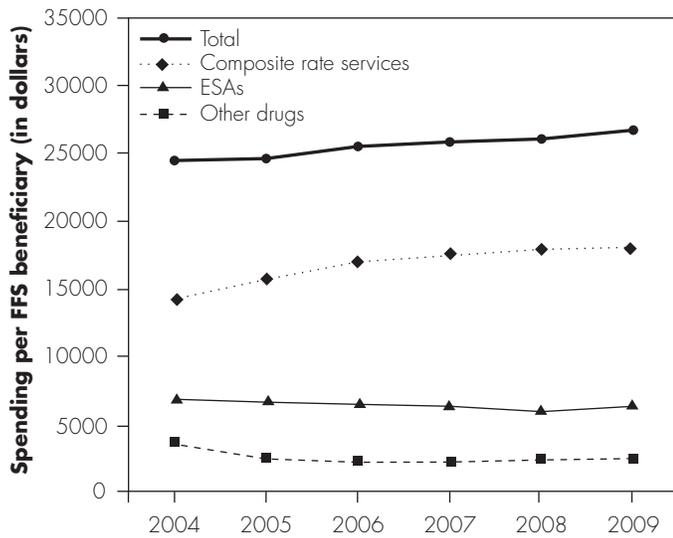
The 1972 amendments to the Social Security Act extended Medicare benefits to people with ESRD who are eligible for Social Security benefits, even those under age 65 years. To qualify for the ESRD program, individuals must be fully or currently insured under the Social Security or Railroad Retirement program, entitled to benefits under the Social Security or Railroad Retirement program, or the spouse or dependent child of an eligible beneficiary.¹ ESRD patients entitled to Medicare due to kidney disease alone have the same benefits as other Medicare beneficiaries.

For beneficiaries entitled to benefits due to ESRD alone, Medicare coverage does not begin until the fourth month after the start of dialysis unless the individual had a kidney transplant or began training for self-care, including those dialyzing at home. About half of new ESRD patients each year are under age 65 and thus are entitled to Medicare

because they have chronic renal failure. In 2008, there were about 110,000 new dialysis patients (United States Renal Data System 2010).²

In 2009, about 340,000 dialysis beneficiaries were covered by fee-for-service (FFS) Medicare. Compared with all Medicare beneficiaries, dialysis FFS beneficiaries are disproportionately younger and African American. About 38 percent of dialysis FFS beneficiaries are African American, three-quarters are less than 75 years old, and more than 45 percent are dually eligible for Medicare and Medicaid benefits. In recent years, the share of dialysis beneficiaries in Medicare Advantage (MA) plans has increased.³ Between 2005 and 2008, enrollment in MA by ESRD beneficiaries doubled to about 40,000 beneficiaries.⁴ Recent data from the Medicare Current Beneficiary Survey suggest that a small proportion (9 percent) of all FFS dialysis beneficiaries lack any supplemental insurance.

Data from CMS’s facility survey indicate that most dialysis patients (about 95 percent) are covered by Medicare. The share of dialysis patients not covered by Medicare between 2003 and 2008 (the most recent five-year period for which data are available) remained relatively steady, between 4 percent and 5 percent. Although most dialysis patients are Medicare covered, Medicare is the secondary payer for about one-quarter of new dialysis patients who are insured by an employer group health plan (EGHP) at the time they are diagnosed with ESRD. If an EGHP covers a beneficiary at the time of ESRD diagnosis, it is the primary payer for the first 33 months of care (as long as the individual maintains the EGHP coverage). EGHPs include health plans that beneficiaries were enrolled in through their own

**FIGURE
6-1****Per capita spending for
composite rate services and
dialysis drugs, 2004–2009**

Note: FFS (fee-for-service), ESAs (erythropoiesis-stimulating agents). ESAs include erythropoietin and darbepoetin alfa.

Source: MedPAC analysis of claims submitted by dialysis facilities to CMS.

employment or through a spouse's or parent's employment before becoming eligible for Medicare due to ESRD.

Between 2006 and 2008, the rate of new cases of ESRD declined from 362 cases per million population to 351 per million, partly due to improvements in the care of diabetes, the leading underlying cause of ESRD (Burrows et al. 2010, United States Renal Data System 2010). By contrast, between 1995 and 2006, the rate of new ESRD cases increased each year. Data from the mid-1990s also suggest a trend toward starting ESRD patients on dialysis earlier in the course of chronic kidney disease across all age and racial groups (United States Renal Data System 2010). Researchers have questioned this early initiation of dialysis in patients with late-stage chronic kidney disease, concluding that it was not associated with an improvement in survival or in clinical outcomes (Cooper et al. 2010).⁵

Most dialysis beneficiaries receive care in freestanding dialysis facilities. Such facilities account for 90 percent of all facilities and treat about 92 percent of dialysis beneficiaries. The two largest dialysis organizations provide the major portion of Medicare-covered FFS

dialysis services: In 2009, they operated about 60 percent of all facilities and treated about two-thirds of all FFS dialysis beneficiaries.

Since 1983, Medicare pays dialysis facilities a predetermined payment for each dialysis treatment they furnish. Under the prospective payment—the composite rate—Medicare covers the cost of some (but not all) services associated with a single dialysis treatment, including nursing, dietary counseling and other clinical services, dialysis equipment and supplies, social services, and certain laboratory tests and drugs. In addition, Medicare pays separately for certain drugs and laboratory tests that have become a routine part of care since 1983. Since 2005, Medicare has paid providers an add-on payment to the composite rate. The Medicare Prescription Drug, Improvement, and Modernization Act of 2003 (MMA) created this add-on payment by shifting some of the payments previously associated with separately billable dialysis drugs to the composite rate (through the add-on payment) and mandated that these changes occur in a budget-neutral manner. Pursuant to the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA), CMS will phase in a modernized prospective payment system (PPS) that broadens the dialysis payment bundle beginning in 2011 and implements a quality incentive program (QIP) in 2012.

In 2009, payment for composite rate services (including the add-on payment) averaged nearly \$160 per treatment, while payment for drugs used to treat conditions resulting from the loss of kidney function (referred to in this chapter as dialysis drugs) averaged about \$77 per treatment. The Commission's Payment Basics provides more information about Medicare's method for paying for outpatient dialysis services (available at http://medpac.gov/documents/MedPAC_Payment_Basics_10_dialysis.pdf).

Medicare spending on outpatient dialysis services

In 2009, Medicare spending for dialysis services, including dialysis drugs, totaled about \$9.2 billion, an increase of 7 percent compared with 2008. These expenditures averaged about \$27,000 per beneficiary. Freestanding facilities accounted for 91 percent of the spending total (about \$8.3 billion in 2009). About 70 percent of all treatments furnished by freestanding facilities are reimbursed by FFS Medicare; other payers, including commercial payers, state Medicaid agencies, and the Department of Veterans Affairs, reimburse the remainder.

During the most recent five-year period for which expenditure data are available (2004–2009), per beneficiary payments (for composite rate services and dialysis drugs) to dialysis facilities grew by about 2 percent per year (Figure 6-1). During this period, per capita expenditures for composite rate services grew by 5 percent per year while expenditures for dialysis drugs fell by 3 percent per year. The decline in spending on dialysis drugs is partly due to MMA provisions that, beginning in 2005, increased Medicare’s payment rate for composite rate services but lowered the rate for dialysis drugs.⁶ Since 2006, the agency pays 106 percent of the average sales price for dialysis drugs.

Despite the decrease in the payment rate, the total volume of dialysis drugs (holding price constant) increased between 2004 and 2007. Between 2007 and 2008, the volume of most dialysis drugs continued to increase with one notable exception. The volume of erythropoiesis-stimulating agents (ESAs) declined during this period. ESAs are drugs (erythropoietin and darbepoetin alfa) used to treat anemia, a common condition among dialysis patients, and account for about 70 percent of spending on dialysis drugs. The decline in ESA volume was linked to (1) changes in CMS’s payment policies for ESAs and (2) new clinical evidence about the appropriate use of ESAs. However, between 2008 and 2009, the total volume and per capita spending for dialysis drugs (including ESAs) increased.

A new dialysis prospective payment method began in 2011

MIPPA modernized the payment method by including dialysis drugs for which providers previously received separate payments in the payment bundle beginning in 2011 and requiring that CMS implement a QIP beginning in 2012.

MIPPA’s provisions are consistent with the Commission’s long-standing recommendation to modernize the outpatient dialysis payment system (Medicare Payment Advisory Commission 2001). We contended that Medicare could provide incentives for controlling costs and promoting quality care by broadening the payment bundle to include drugs, laboratory services, and other commonly furnished items that providers formerly billed separately and by linking payment to quality. The new bundled rate is designed to create incentives for facilities to furnish services more efficiently by reducing incentives inherent in the former payment method to overutilize drugs.

CMS’s implementation of the MIPPA provisions makes three key changes to the outpatient dialysis payment method. Table 6-1 (p. 124) compares the new payment method provisions with the former payment method.

Broadening the payment bundle

The first change to the payment method concerns definition of the payment bundle. Beginning in 2011, the dialysis payment bundle is expanded to include:

- composite rate services,
- Part B injectable dialysis drugs furnished by the facility and their oral equivalents paid for under Part D,
- 53 ESRD-related laboratory services,
- Part B separately billable equipment and supplies furnished by the facility,
- selected ESRD-related oral-only Part D drugs, and
- self-dialysis training services.

Until 2014, CMS will continue to pay for the oral-only ESRD-related drugs under Part D. This delay will enable the agency to complete an evaluation of the drugs’ pricing data and address operational concerns about including oral-only drugs in the broader payment bundle. In 2011, the bundled base rate is set at \$229.63. While the new PPS substantially broadens the payment bundle, facilities will continue to be paid for each dialysis treatment they furnish. MIPPA suggests that the Secretary can augment the payment bundle over time when new medical innovations, including drugs and devices, related to the treatment of ESRD become available. The law specifies that, in addition to composite rate services and dialysis drugs, the dialysis payment bundle includes other items and services that were not previously included in the composite rate bundle that are furnished for treatment of ESRD.

Increasing use of payment adjusters

The new payment method increases the number of beneficiary-level and facility-level payment adjusters. MIPPA gave the Secretary the authority to adjust the payment rate by including factors that affect providers’ costs. The new PPS augments the current beneficiary-level adjusters used for adults—age and body mass—by including the presence of three acute and three chronic comorbidities and onset of dialysis for the first four months of dialysis treatment. For pediatric beneficiaries, the new PPS adjusts payment by age and dialysis method.

**TABLE
6-1**

New dialysis payment method broadens the payment bundle and includes more beneficiary-level adjustments, a low-volume adjustment, and payment for high-cost outliers

Payment method feature	Composite rate payment method: 1983–2010	New outpatient dialysis PPS: 2011 and beyond
Payment bundle	Composite rate services, which include: nursing, dietary counseling and other clinical services, dialysis equipment and supplies, social services, and certain laboratory tests and drugs.	<ul style="list-style-type: none"> • Composite rate services • Separately billable (Part B) injectable dialysis drugs and their oral equivalents • ESRD-related laboratory tests • Selected ESRD-related Part D drugs
Unit of payment	Single dialysis treatment	Single dialysis treatment
Add-on payment to the composite rate	Yes	None
Self-dialysis training services adjustment	Yes	Yes
Beneficiary-level adjustments	<ul style="list-style-type: none"> • For adults: age and body mass • For pediatric beneficiaries: none 	<ul style="list-style-type: none"> • For adults: age, dialysis onset, body mass, 6 comorbidities • For pediatric beneficiaries: age and dialysis method
Facility-level adjustments	<ul style="list-style-type: none"> • Wage index 	<ul style="list-style-type: none"> • Wage index • Low-volume adjustment
Outlier policy	None	Applies to the portion of the broader payment bundle comprising the drugs and services that were formerly billed separately
Quality incentive program	None	Begins in 2012
Update	No statutory provision	Begins in 2012, set at ESRD market basket less productivity adjustment

Note: PPS (prospective payment system), ESRD (end-stage renal disease).

Source: MedPAC analysis of CMS 2010 final ESRD rule (Centers for Medicare & Medicaid Services 2010).

Two facility-level adjusters are included under the new payment method. The first one is new and targets low-volume facilities by including an 18.9 percent adjustment to the base payment rate to account for the higher costs that these facilities incur. A low-volume facility is defined as one that furnishes fewer than 4,000 treatments (including those for non-Medicare patients) in each of the three years before the payment year and that has not opened, closed, or received a new provider number due to a change in ownership during the three-year period. Facilities under common ownership and within 25 road miles of each other are treated as if they were one unit when applying the low-volume adjustment; however, facilities certified for Medicare participation before January 1, 2011, are exempt from this provision.

CMS projections suggest that this adjustment should disproportionately increase the payments of rural facilities. Dialysis facilities in rural areas account for about 25 percent of all facilities while CMS projects that about 45 percent of low-volume facilities are located in rural areas (Centers for Medicare & Medicaid Services 2010).

The second facility-level adjuster—the wage index—was used under the former payment method. It uses the acute care hospital wage index to adjust payments to reflect local market prices for labor. Although MIPPA gave the Secretary the flexibility to implement a facility-level adjustment based on rural location, CMS is not implementing such an adjustment because the low-volume adjustment reduces the need to do so.

The new payment method will be phased in over four years; facilities were permitted to bypass the transition and opt into the new payment method if they notified CMS by November 1, 2010.

In 2011, CMS applies two budget-neutrality factors to ensure that total ESRD payments remain budget neutral, as specified by MIPPA. The first factor implements the statutory provision that total payments in 2011 must be equal to 98 percent of the estimated total payments for dialysis services that would have been made under the former payment method. The second factor is designed to ensure that overall program spending does not increase as a result of the provision that permits facilities to opt into the new payment method (and bypass the four-year transition period). This transitional budget-neutrality factor reduces all facilities' payments by 3.1 percent. To calculate the transition adjuster, CMS estimated that 43 percent of facilities would opt out of the transition period and choose to be paid under the new payment system.

Implementing a quality incentive program

The ESRD QIP mandated in MIPPA begins in 2012. The ESRD QIP, Medicare's first payment incentive program, uses clinical performance outcomes that dialysis facilities submit on their claims. Under MIPPA, facilities that do not meet the performance standard will receive up to a 2 percent reduction in their payment rate. The three performance measures for 2012 are:

- **Anemia management:** Percentage of beneficiaries with an average hemoglobin concentration less than 10 grams/deciliter (g/dL). The Food and Drug Administration (FDA) recommends that patients treated with ESAs achieve a target hemoglobin value between 10 g/dL and 12 g/dL.
- **Anemia management:** Percentage of beneficiaries with an average hemoglobin rate greater than 12.0 g/dL. The labeling instructions for ESAs state that patients with chronic renal failure experience an increased risk for death and serious cardiovascular events when administered ESAs with a target hemoglobin value of greater than 13 g/dL.
- **Hemodialysis adequacy:** Percentage of beneficiaries with an average urea reduction ratio (URR) greater than 65 percent. Individuals with a URR value of less than 65 percent may not have sufficient wastes removed from their bloodstream during dialysis. A

larger percentage of patients with an average URR above 65 percent suggests better dialysis adequacy.

CMS has developed a methodology for calculating facility-level scores under the QIP. A facility's total performance score can range from 0 to 30 points, with each measure worth a maximum of 10 points.⁷ To calculate each facility's score, CMS will weight the hemoglobin measure assessing the percentage of beneficiaries with an average hemoglobin less than 10 g/dL as 50 percent of the total score. The remaining 50 percent of the score will be divided equally between the two other measures. Under MIPPA, the performance standard with respect to 2012 payment is the lesser of (1) the facility-specific rate for each measure in 2007 or (2) the 2008 national performance rate of all facilities for each of these measures.

A sliding scale exists for payment reductions linked to QIP performance in 2012. Facilities need to achieve a minimum score of 26 points to avoid a payment reduction. The payment reduction for scores between 21 and 25 points is 0.5 percent; between 16 and 20 points, 1.0 percent; between 11 and 15 points, 1.5 percent; and between 0 and 10 points, the full 2.0 percent. CMS estimates that about one-quarter of all facilities will receive some payment reduction, with only 0.7 percent of all facilities receiving a 2 percent payment reduction in 2012 (Centers for Medicare & Medicaid Services 2011). Because reductions will be applied to facilities' monthly Medicare payments, beneficiaries' 20 percent coinsurance will reflect payment reductions that result from facilities' QIP performance scores.

Relationship between dialysis facilities and physicians who treat dialysis patients

Because physicians can own facilities under the statute, physicians with financial or ownership interests share similar incentives with dialysis facilities to be efficient in furnishing services covered under the broader bundle. Disclosure of physician ownership of health care entities, as recommended by the Commission in 2009, will help CMS and other payers determine whether physician ownership might influence patient referrals, quality of care, volume, and overall spending (Medicare Payment Advisory Commission 2009).

Dialysis facilities depend on strong relationships with physicians, who typically are responsible for admitting patients to the facility and prescribing their treatments and drugs. Under the old and new payment methods,

relationships between the companies that own dialysis facilities and physicians must comply with the Anti-Kickback Statute, which prohibits the offer of payment or receipt of anything of value to induce the referral of patients for services paid for by federal health programs. Another statute, the Stark Law, restricts compensation relationships between physicians and entities that provide certain “designated health services.” Designated health services do not include composite rate services and most dialysis drugs. Thus, physicians are permitted to own facilities, participate in joint ventures, and have compensation relationships with dialysis facilities. In addition, many physicians who treat dialysis patients have medical director agreements with dialysis facilities. Medicare’s safety standards (conditions for coverage) require dialysis facilities to have a medical director.

Examples of financial relationships that one of the large dialysis chains reported in its public annual filing with the U.S. Securities and Exchange Commission include the following:

- The chain enters into compensation arrangements with physicians, including medical director agreements.
- Some of the chain’s facilities are leased from entities in which referring physicians hold interests.
- Some facilities sublease space to referring physicians.
- Some of the chain’s referring physicians own equity interests in companies that operate their dialysis facilities (DaVita Inc. 2010a).

Another company explains that it partners with physicians in developing and operating dialysis facilities. This regional chain has established a network of more than 40 independent dialysis centers that are individually controlled by one or more physician partners, yet they share resources and management expertise, including collective buying power (Innovative Dialysis Systems 2010).

Future topics

As CMS phases in the new payment method, the Commission will continue its annual assessment of payment adequacy to providers of ESRD care. In particular, the Commission intends to focus on dialysis care in rural and other isolated areas, consumer information, the new quality incentives, payment adjusters, and payment updates.

Access to dialysis care in rural and other isolated areas

We intend to monitor access to dialysis care in rural and other isolated areas. In this chapter, we examine several aspects of rural access, including the growth in dialysis stations and changes in the distances that beneficiaries travel to obtain dialysis care. In addition, the Patient Protection and Affordable Care Act of 2010 requires the Commission to evaluate Medicare payments to facilities in rural areas as well as access to and the quality of care in rural areas. The mandated report, which is due to the Congress on June 15, 2012, will include a discussion of access to dialysis care.

Information on the quality of dialysis care available to patients and the public

The Commission has previously discussed the importance of monitoring the use of services and quality of care under the new PPS (Medicare Payment Advisory Commission 2003). CMS’s Dialysis Compare website provides facility-level information on dialysis adequacy, anemia management, and mortality. The agency could augment these data with other facility-level measures that it already collects (and provides to facilities) on other renal-related outcomes, such as septicemia and access-related infections, vascular access management, and rate of transplantation.⁸ An independent nonprofit group recently made these data available on its website (ProPublica 2010). In addition to posting these renal-related outcomes, posting information on facilities’ compliance with Medicare’s health and safety standards, as CMS does for nursing homes, will help support beneficiaries’ decisions.

Although currently unavailable, information on patients’ satisfaction with their care is another measure that will help support beneficiaries’ decisions and may improve the patient-centeredness of their care. An ongoing mechanism for monitoring patient satisfaction can also serve as a way of surfacing patient concerns that complaint systems do not. The Commission and the Office of Inspector General recommended that CMS collect and analyze information on a regular basis on patients’ satisfaction with the quality of and access to care (Medicare Payment Advisory Commission 2000, Medicare Payment Advisory Commission 2003, Office of Inspector General 2000). Consumer testing of the Dialysis Facility Compare website indicated that consumers most frequently requested patient satisfaction information about the care given in dialysis facilities (Centers for Medicare & Medicaid Services 2008).

A Consumer Assessment of Healthcare Providers and Systems (CAHPS®) survey is available that captures data on in-center hemodialysis patients' perspectives on care provided by doctors, dialysis center staff, and the dialysis facility. CMS and the Agency for Healthcare Research and Quality jointly developed the CAHPS instrument during the past decade

Although patient satisfaction is among the measures that facilities must assess under Medicare's conditions for coverage, CMS does not require facilities to use the CAHPS instrument for their in-center hemodialysis patients (Centers for Medicare & Medicaid Services 2008).⁹ CMS stated that voluntary use of the CAHPS instrument would increase as the renal community becomes more experienced in using the survey instrument.

Quality incentive program The Commission intends to monitor the effect of the ESRD QIP on dialysis facilities and beneficiaries and evaluate the need for including additional incentives to ensure quality improvement. In 2004, the Commission recommended that ESRD payment be linked to the quality of care furnished by providers and that such a program redistribute payments based on how providers perform but should not result in lower aggregate payments (Medicare Payment Advisory Commission 2004a). Under MIPPA, facilities that do not meet the performance standard will receive up to a 2 percent reduction in their payment rate. CMS estimates that totaling all the payment reductions for the one-quarter of all facilities expected to receive a reduction leads to a total payment reduction of approximately \$17.3 million in 2012, representing 0.2 percent of total ESRD payments (Centers for Medicare & Medicaid Services 2011).

The Commission remains concerned that the QIP does not hold facilities accountable for the quality of care furnished to all their patients (Medicare Payment Advisory Commission 2010a). For example, it does not measure anemia management for patients who do not receive ESAs, nor does it measure dialysis adequacy for home dialysis patients or hemodialysis patients who receive more than three treatments per week, and it excludes pediatric patients (under 18 years of age). Furthermore, the QIP may not sufficiently value the dialysis adequacy measure. Patients who receive insufficient dialysis are at greater risk of mortality and other serious events than patients whose treatment meets adequacy guidelines. Although the proportion of patients who currently receive adequate dialysis is high and has increased over time, there

is a greater incentive under a PPS to undertreat patients than to overtreat them

Finally, the Commission believes that the measures used in the ESRD QIP initiatives should evolve (Medicare Payment Advisory Commission 2005). In the future, CMS should consider linking payment to measures associated with improved patient outcomes, such as lower rates of renal-related hospitalizations and emergency room visits (Medicare Payment Advisory Commission 2010a). As we noted previously, to link some potential measures to ESRD payment, such as use of home dialysis and arteriovenous fistulas, the recommended type of vascular management for hemodialysis patients, it would be necessary to identify those patients who are not appropriate candidates because of the presence of certain clinical morbidities (for both measures) and social circumstances and personal preferences (for home dialysis) (Medicare Payment Advisory Commission 2007). Thus, calculation of the QIP measure might need to account for such patients.

Transitional budget-neutrality adjustment A greater number of facilities may have elected to opt out of the transition to the new payment method than CMS anticipated. According to an association of renal-related stakeholders, about 90 percent of facilities have decided to be paid under the new payment method. As a result, the 3.1 percent budget-neutrality adjustment may be set too high. As of this writing, CMS has not announced the number of facilities that have opted into the new payment method.

Low-volume payment adjustment The Commission intends to monitor the impact of the low-volume payment adjustment, including which facilities are benefiting from it. For qualifying existing facilities, the payment adjustment is applied without regard to the distance to the next closest facility. Thus, this payment adjustment can be applied to two or more small facilities (that were in existence and certified for Medicare participation before January 1, 2011) located within close proximity—even side by side—to one another.

Updating the new PPS payment rate The Secretary is required to update the payment rate for the broader bundle to reflect changes over time in the prices of goods and services used to provide ESRD care. For several items in the market basket, including dialysis drugs, electricity, natural gas, laboratories, and supplies, CMS is using the producer price index (PPI), a family of indexes that

**TABLE
6-2**

The total number of dialysis facilities is growing; for-profit and freestanding dialysis providers are a larger share over time

	2010	Average annual percent change	
		2005-2010	2009-2010
Total number of dialysis facilities	5,413	3.6%	3.9%
Total number of hemodialysis stations	95,489	3.9	4.4
Urban hemodialysis stations	76,316	3.8	4.5
Rural hemodialysis stations	19,173	4.3	4.2
Mean number of hemodialysis stations per facility	17.6	0.3	0.5

	Percent of facilities	Percent of Medicare dialysis treatments	Average annual percent change in the number of facilities	
Nonchain	20%	15%	-0.3%	0.8%
Affiliated with any chain	80	85	4.7	4.7
Affiliated with one of the two large dialysis organizations	61	65	3.8	5.5
Rural	24	19	3.2	2.9
Urban	76	81	3.7	4.2
Freestanding	90	90	4.5	4.8
Hospital based	10	10	-2.5	0.0
For profit	82	87	4.6	5.2
Nonprofit	18	13	-0.6	-1.7

Note: Percent of Medicare dialysis treatments uses data derived from claims submitted by dialysis facilities for 2009 (the most recent year available). Nonprofit includes those designated as either nonprofit or government.

Source: Compiled by MedPAC from the 2005, 2009, and 2010 Dialysis Facility Compare database from CMS and 2009 claims submitted by dialysis facilities.

measures the average change over time in selling prices received by domestic producers of goods and services.

The Office of Inspector General contended that the “PPI—commodities pharmaceuticals for human use, prescription” will not accurately capture price changes incurred by dialysis facilities for providing injectable dialysis drugs previously paid for under the average sales price methodology or for oral drugs previously paid for under Part D (Office of Inspector General 2010). CMS disagreed, stating that PPIs are the preferable price proxies for goods and services that facilities purchase as inputs in producing dialysis services, since these facilities generally make purchases in the wholesale market. CMS argued that future growth in dialysis drug prices will more closely reflect market-based price drivers, such as those measured by the PPI. Dialysis drugs represent one-quarter of the market basket. Thus, how these prices are updated will

affect the accuracy of dialysis payments. In next year’s assessment of payment adequacy, the Commission will assess the growth of the PPI for pharmaceuticals versus other proxies measuring the growth in drug prices, such as changes in average sales price.

Providers of outpatient dialysis services

During the past five years, an increasing proportion of dialysis facilities are freestanding, owned by publicly traded companies, operated by a chain (i.e., multifacility enterprises), and for profit (Table 6-2). By chain, we mean facilities operated under common ownership; CMS’s Dialysis Facility Compare database indicates “whether or not the facility is owned or managed by a chain organization.” Recently, the dialysis sector has evolved into an oligopoly, in which a small number of firms supply the major portion of an industry’s output. In 2005 and 2006, the four largest dialysis organizations

merged into two for-profit organizations. Together the two largest dialysis organizations (Fresenius Medical Care North America and DaVita) account for 60 percent of all facilities and for nearly 70 percent of freestanding facilities. However, industry consolidation continues:

- In November 2010, two dialysis companies, Renal Advantage and Liberty Dialysis, agreed to combine to form the third largest provider of dialysis services, caring for more than 19,000 patients in 260 facilities in 32 states.
- In June 2010, U.S. Renal Care Inc. acquired Dialysis Corporation of America. As a result of this consolidation, U.S. Renal Care Inc. will care for 5,500 patients in 84 facilities in 9 states.

The recent trends in the profit status and consolidation among dialysis providers suggest that the dialysis industry is an attractive business to for-profit providers and that there are efficiencies and economies of scale in providing dialysis care.

Are Medicare payments adequate in 2011?

To address whether payments for the current year (2011) are adequate to cover the costs that efficient providers incur and how much providers' costs should change in the coming year (2012), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care by examining the capacity and supply of dialysis providers and changes over time in the volume of services provided, quality of care, providers' access to capital, and the relationship between Medicare's payments and providers' costs. Most of our payment adequacy indicators for dialysis services are positive: Provider capacity is sufficient, volume growth has kept pace with beneficiary growth, some quality improvements have occurred, and provider access to capital is sufficient. The Medicare margin for composite rate services and dialysis drugs was 3.1 percent in 2009, and we project it will be 1.3 percent in 2011.

Beneficiaries' access to care: Indicators continue to be generally favorable

Our analysis of access indicators—including the capacity of providers to meet beneficiary demand, changes in patients' ability to obtain different types of dialysis, and

changes in the volume of services—shows that beneficiary access to care remains favorable. Although African Americans and beneficiaries dually eligible for Medicare and Medicaid were overrepresented in facilities that closed in 2009, overall, facility closures affected less than 1 percent of these beneficiaries.

Providers' capacity has kept pace with beneficiary demand

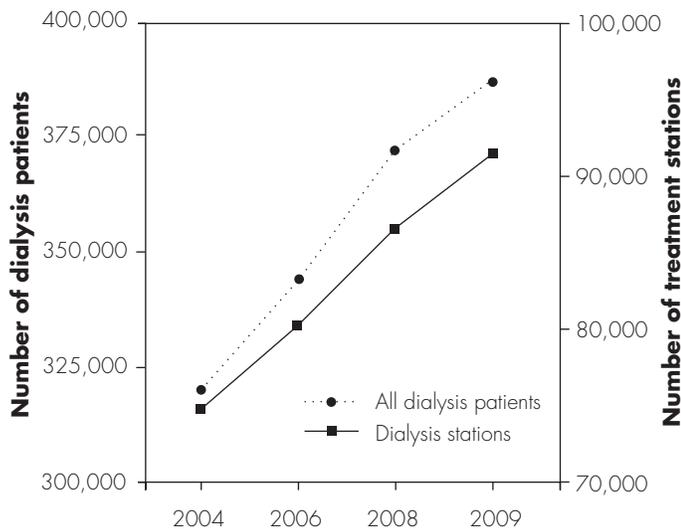
Since 2005, freestanding facilities have increased by more than 4 percent annually and currently account for 90 percent of all facilities (Table 6-2). During this period, for-profit facilities have increased at 4.6 percent per year and account for 82 percent of all facilities. The number of hospital-based facilities decreased from 644 to 566 during this time. Most freestanding facilities (91 percent) are for profit; by contrast, most hospital-based facilities (96 percent) are nonprofit (data not shown). Most freestanding dialysis facilities (87 percent) are affiliated with a chain, whereas most hospital-based facilities (80 percent) are not (data not shown). In terms of size, as measured by the number of dialysis treatment stations, freestanding facilities are, on average, larger than hospital-based facilities (data not shown). In 2010, freestanding facilities had 18 dialysis stations, on average, while hospital-based facilities averaged 14 stations.

About one-quarter of dialysis facilities and stations are located in rural areas, while more than one-fifth of FFS dialysis beneficiaries reside in rural areas. Recent trends suggest that the gap in the annual growth rate between urban and rural facilities appears to be widening. During the past five years, the number of urban facilities increased by 3.7 percent per year, compared with 3.2 percent annual growth for rural facilities. Growth was even faster between 2009 and 2010, as the number of urban facilities increased by 4.2 percent per year, compared with 2.9 percent annual growth for rural facilities. In contrast, in these last two years, the number of hemodialysis stations grew at similar rates in rural and urban areas, after slightly faster annual growth between 2005 and 2010 in rural areas compared with urban areas (4.3 percent per year vs. 3.8 percent per year) (Table 6-2).

Growth in the number of dialysis stations and dialysis beneficiaries suggests that provider capacity has kept up with demand for care during the past decade. In the most recent five-year period for which data are available—between 2004 and 2009—the number of all dialysis patients (those in FFS Medicare, in MA, and not eligible

FIGURE 6-2

Growth in the number of dialysis stations has kept pace with growth in the number of all dialysis patients



Note: All patients include those individuals covered by Medicare under the fee-for-service and Medicare Advantage programs and individuals not covered by Medicare.

Source: Compiled by MedPAC from CMS's Dialysis Compare file, United States Renal Data System 2010, and data from Renal Network 13.

for Medicare) and dialysis treatment stations increased by 4 percent per year (Figure 6-2). During this period, annual growth in the number of treatment stations was faster than the 2 percent annual growth in the number of FFS dialysis beneficiaries.

Access to different dialysis options has changed little over time

Access to types of dialysis shows little change over time according to data from CMS. Between 1998 and 2010, at least 96 percent of facilities offered in-center hemodialysis and 46 percent offered some type of peritoneal dialysis—continuous cycle peritoneal dialysis or continuous ambulatory peritoneal dialysis. Between 2003 and 2010, the proportion of facilities offering home hemodialysis increased from 12 percent to 22 percent. In addition, industry data suggest that dialysis facilities are beginning to offer in-center nocturnal hemodialysis. For example, DaVita operated more than 115 nocturnal facilities in 2010 (representing about 8 percent of all its facilities) (DaVita Inc. 2010b).

Most patients receive dialysis in outpatient facilities. In 2008 (the most recent year for which data are available), 92 percent of dialysis patients received hemodialysis in a facility, while 7 percent received peritoneal dialysis (at home), and 1 percent received home hemodialysis (United States Renal Data System 2010). Between 1998 and 2008, the number of patients receiving hemodialysis in a facility increased by 5 percent per year, while the number of patients treated at home grew by less than 1 percent per year.

Fewer patients overall dialyzed at home in 2008 than in the mid-1990s. Factors contributing to this trend include patients' lack of knowledge about home-based dialysis and some physicians' lack of familiarity with home modalities, which may make them less likely to discuss this option with their patients. Medicare's payment method is also a factor in the decline in home-based methods. The profitability of separately billable dialysis drugs may have provided an incentive to focus on in-center programs rather than on home-based ones. On average, peritoneal dialysis patients use fewer dialysis drugs than in-center hemodialysis patients. Home dialysis offers several advantages related to quality of life and satisfaction. Compared with in-center hemodialysis, home dialysis is more convenient for patients because they do not have to travel and can dialyze on their own schedule. The new payment method could result in increased use of home methods. Providers' costs to furnish the most common home-based method—peritoneal dialysis—are less than for in-center hemodialysis. In addition, in 2010, Medicare began to pay for educating pre-ESRD beneficiaries about kidney disease. Early intervention, which includes educating patients about their treatment options and better management of chronic kidney disease patients (before they require dialysis), may reduce the substantial morbidity, mortality, and costs associated with ESRD (see text box).

During the past few years, the use of more frequent hemodialysis (furnished at home or in a center five to seven times per week compared with the typical three times a week regimen) has modestly increased. Interest in more frequent hemodialysis regimens has grown during the past decade because of studies showing improved outcomes and quality of life. According to CMS's facility survey, between 2004 and 2008, the number of patients receiving hemodialysis more than five times per week more than tripled to about 2,200 patients. Results of a study partly funded by the National Institutes of

Earlier intervention and better management of chronic kidney disease before starting dialysis improves patients' outcomes

Better management of chronic kidney disease before developing end-stage renal disease (ESRD) and the need for either dialysis or a kidney transplant is an important determinant of ESRD patients' outcomes. Researchers have shown that early referral to a multidisciplinary renal team before starting dialysis is associated with:

- increased provision of medical interventions, including angiotensin-converting enzyme inhibitors and blood sugar control, that delay disease progression;
- better management of renal-related complications, including malnutrition and osteodystrophy;
- decreased mortality risk in the first four months after starting dialysis (Bradbury et al. 2007);
- increased likelihood of being registered on the kidney transplant list and receiving a transplant (Winkelmayer et al. 2007); and
- improved preparation for renal replacement therapy, including educating patients about the different dialysis treatment options and having the recommended type of vascular access—an arteriovenous fistula.

A Commission analysis also showed that earlier referral of patients with chronic kidney disease to a nephrologist may reduce some of the morbidity associated with ESRD (Medicare Payment Advisory Commission 2004b). However, a substantial share of patients do not see a renal specialist until they are close to needing dialysis. For example, Kinchen and colleagues reported that 30 percent of patients were first seen by a nephrologist less than 4 months before initiation of dialysis (Kinchen et al. 2002).

Medicare has little effect on the pre-ESRD care furnished to individuals who are not already entitled to benefits. The lack of Medicare coverage primarily affects individuals under age 65, who are generally not eligible for Medicare benefits until the fourth month after starting dialysis (with the exception of individuals who undergo transplantation or who participate in a self-dialysis training program or already qualify for Medicare due to disability). Thus, it is not surprising that the uninsured (compared with the insured) were less likely to have seen renal specialists in the year before they initiated dialysis (Kinchen et al. 2002). In addition, race and a greater severity of comorbid disease were related to access to pre-ESRD care. African Americans (compared with whites) and individuals with greater severity of comorbid disease (compared with individuals with no or mild comorbid disease) were less likely to have seen renal specialists before they initiated dialysis (Kinchen et al. 2002). ■

Health showed that patients who received more frequent hemodialysis (six times per week compared with the conventional three times per week) had improvements in heart health and blood pressure as well as in overall health (National Institutes of Health 2010). The more frequent treatments also helped avoid excessive phosphate levels in the blood, which is often a problem for patients on dialysis. The only downside was that access to blood vessels needed to be adjusted about twice as often in patients who received more treatments. With the publication of these clinical trial results, the Commission will explore policy options for covering and paying for more frequent hemodialysis.

Types of facilities that closed and their effect on beneficiaries' access to care

Each year, we look at the types of facilities that close and assess whether specific groups of beneficiaries are disproportionately affected. Specifically, we compare the characteristics of dialysis beneficiaries treated by facilities that were open in 2008 and 2009, that newly opened in 2009, and that closed in 2009.

Compared with facilities that remained open, facilities that closed in 2009 (about 60 units) were more likely to be hospital based and nonprofit, which is consistent with long-term trends in supply (as shown in Table 6-2, p. 128). The finding that facilities that opened in 2009

(about 270 units) were more likely to be freestanding and for profit is also consistent with the long-term trends in supply. Facilities that closed had less capacity than those that remained open (averaging 13 hemodialysis stations compared with 18 hemodialysis stations). Facility closures in rural areas did not appear to limit providers' capacity. Between 2008 and 2009, the number of hemodialysis stations in rural areas increased by about 4 percent, from about 18,400 stations to 19,200 stations.

Facility closures in 2009 did not appear to adversely affect elderly beneficiaries (75 years or older). Facilities that closed and those that remained in business had a similar share (24 percent to 25 percent) of elderly beneficiaries. Disease severity, as measured by the Charlson index, did not differ between facilities that closed and ones that remained in business.¹⁰ However, facility closures in 2009 disproportionately affected African American beneficiaries and beneficiaries dually eligible for Medicare and Medicaid. Facilities that closed, compared with those that remained in business, treated greater proportions of African Americans (46 percent compared with 38 percent) and dual eligibles (51 percent compared with 48 percent). However, less than 1 percent of African American and dual-eligible beneficiaries were affected by closures. In addition, as we show in the next section, the travel distance for all African Americans and dual-eligible beneficiaries remained relatively constant between 2004 and 2008.

Elderly, African American, and dual-eligible beneficiaries continued to obtain care from the two large dialysis chains that serve the majority of FFS beneficiaries. In both 2008 and 2009, 23 percent of beneficiaries served by these chains were elderly, 40 percent were African American, and 47 percent were dual eligibles.

Travel distances for new FFS dialysis beneficiaries

Another way to assess whether facility closures and consolidations affect beneficiaries' access to care is to look at changes in the distance new FFS dialysis beneficiaries travel to seek care.¹¹ Longer travel time to the dialysis unit, which creates a substantial burden for many patients, has been linked to decreased patients' adherence to the dialysis prescription and increasing mortality (Moist et al. 2008).

We calculated driving miles for new FFS dialysis beneficiaries in 2004, 2006, and 2008 using claims submitted by facilities to CMS, CMS's Renal Management Information System file, and Dialysis Compare. As shown

in Table 6-3, during this four-year period, median driving miles did not substantially change. Median driving distance was about 6 miles for all new FFS dialysis beneficiaries. For the three years examined, driving distances remained constant for beneficiaries in the 25th percentile of driving distances (3 miles) and for beneficiaries in the 75th percentile (13 miles). Older beneficiaries and African Americans traveled fewer median miles than younger beneficiaries and whites. As expected, beneficiaries residing in rural areas drove longer distances than beneficiaries residing in urban areas. Similar to the finding for all beneficiaries, the variability in travel distances, as measured by the 25th and 75th percentiles of driving distances, remained constant across the different beneficiary groups. Specifically, in all three years, driving distances ranged from 3 miles to 10 miles for African American beneficiaries, from 3 miles to 12 miles for elderly beneficiaries, and from 3 miles to 22 miles for rural beneficiaries.

Volume of services: Use of ESAs increased between 2008 and 2009

To assess changes in the volume of dialysis services, we examined trends in the number of dialysis treatments furnished to beneficiaries and in the use of drugs administered during dialysis. For this analysis, we focused on the volume of services furnished by freestanding facilities, as they treat most dialysis beneficiaries.

Between 2008 and 2009, dialysis treatments furnished to FFS beneficiaries grew at an average annual rate that kept pace with the growth in the number of FFS dialysis beneficiaries. During this period, the number of dialysis treatments furnished by freestanding facilities grew by 4 percent per year, while the number of FFS dialysis beneficiaries grew by 4 percent per year.

To assess changes in erythropoietin volume (the ESA that accounts for more than 90 percent of ESA spending and about 70 percent of total drug spending), we held the drug payment rate constant and looked at the dollar change in the total volume of the products. In the most recent period for which data are available (2008–2009), the aggregate volume of erythropoietin increased by 6 percent. On a per capita basis, units per treatment of erythropoietin increased by 2 percent. This increase in the aggregate and per capita use of erythropoietin is in contrast to the slowdown in the use of this drug class between 2006 and 2008.¹²

A key question about higher ESA volume in 2009 is whether this trend is associated with improving beneficiaries' outcomes, including survival and use of

**TABLE
6-3**

Median driving miles did not change for new fee-for-service dialysis beneficiaries between 2004 and 2008

	Median driving miles		
	2004	2006	2008
All			
Median	6.1 miles	6.1 miles	6.0 miles
(25th percentile–75th percentile)	(2.9–13.2)	(3.0–13.3)	(2.9–12.8)
Male	6.2	6.3	6.1
Female	5.9	6.0	5.9
Less than 45 years	7.1	6.3	6.5
45 to 64 years	6.1	6.2	5.8
65 to 74 years	6.3	6.3	6.3
75 years or older	5.6	5.9	5.8
White	6.9	7.0	6.8
African American	4.9	4.9	4.9
Other race	5.3	5.7	5.6
Dually eligible for Medicare and Medicaid	5.8	5.7	5.6
Resided in rural area	11.0	10.8	10.4
Resided in urban area	5.6	5.6	5.5

Source: MedPAC analysis of 2004, 2006, and 2008 claims data submitted by dialysis facilities and CMS's Renal Management Information System file.

inpatient hospital and emergency department services. Evidence in the peer-reviewed literature reports increased risk of cardiovascular morbidity and mortality among patients with chronic kidney disease (including predialysis patients and dialysis patients) who are prescribed higher doses of ESAs that target higher hematocrit/hemoglobin levels (Besarab et al. 1998, Pfeffer et al. 2009, Singh et al. 2006). Recently published studies support these findings. A new study reported that dialysis facilities that used larger (versus smaller) doses of ESAs in patients with hematocrit levels of 33 percent or higher had statistically elevated mortality risks (Brookhart et al. 2010). FDA officials called for randomized trials to assess the optimal hemoglobin target, dosing algorithm, and monitoring approach for patients with anemia from chronic kidney disease (Unger et al. 2010). In June 2010, CMS opened a national coverage analysis evaluating ESA use for treatment of anemia in adults with chronic kidney disease, including patients on dialysis and patients not on dialysis.

Volume for other dialysis drugs has also increased. Between 2008 and 2009, the aggregate volume of non-ESA drugs (holding price constant) increased by 6 percent.

Quality of care: Some measures show progress, others need improvement

The Commission assesses quality of care furnished to dialysis patients using a variety of measures (clinical performance measures and beneficiaries' outcomes) and from different perspectives (trends for all patients and by type of facility).

To assess how facilities meet Medicare's clinical performance measures, we use data from the Elab Project, in which nearly all dialysis facilities provide ESRD networks with patient-level laboratory data on clinical indicators, such as dialysis adequacy and anemia status for all the facility's patients treated. We use data from CMS's quality project, Fistula First, to monitor changes in the types of vascular access used by hemodialysis patients.

To assess trends in hospitalization, mortality, and renal transplantation overall for all patients and by facility type, we use data derived from claims by the U.S. Renal Data System.

The conclusions of this year's assessment of changes in dialysis quality are consistent with those in last year's report. Dialysis adequacy remains high and improvements have been made in the proportion of all patients meeting the anemia status recommendations developed by FDA and using the type of vascular access recommended by renal clinicians. Between 2003 and 2008, mortality, while high, trended downward and hospitalization rates remained about the same. Rates of kidney transplantation increased for Asians and Native Americans, remained about the same for African Americans, and decreased for whites. Some provider types achieved statistically significantly lower rates of standardized hospitalization and mortality rates than others.

Trends in clinical indicators of dialysis quality

Data show that the quality of some aspects of dialysis care has remained high. Between 2003 and 2009, the proportion of dialysis patients receiving adequate dialysis (a measure of the effectiveness of the dialysis treatment in removing waste products from the body) remained high (Table 6-4). According to this measure, from 93 percent to 95 percent of hemodialysis patients and 88 percent to 90 percent of peritoneal dialysis patients during this period received adequate dialysis.

Also during this period, increasing proportions of dialysis patients had their anemia under control (i.e., with a mean hemoglobin between 10 g/dL and 12 g/dL). Nearly all dialysis patients have anemia because diseased kidneys often do not produce sufficient amounts of a hormone that stimulates red blood cell production, leading to the development of anemia. Providers furnish ESAs and intravenous iron to treat anemia.

In the 2003 to 2009 period, use of the recommended type of vascular access—arteriovenous (AV) fistula—also improved. Hemodialysis patients require vascular access—the site on the patient's body where blood is removed and returned during dialysis. The three basic types of vascular access are AV fistulas, AV grafts, and catheters.¹³ For most patients, the AV fistula is considered the best long-term vascular access for hemodialysis because it provides adequate blood flow, lasts a long time, and has a lower complication rate than other types of access (National

Institute of Diabetes and Digestive and Kidney Diseases 2008). As shown in Table 6-4, the rate of sepsis is lowest for patients with an AV fistula, followed by those with an AV graft, and a catheter. Compared with AV graft patients, AV fistula patients undergo fewer declotting procedures, a minimally invasive procedure performed to improve blood flow in fistulas and grafts placed in the blood vessels of dialysis patients. CMS is leading a national quality initiative—Fistula First—with a goal of having fistulas placed in at least half of new hemodialysis patients and having a minimum of 66 percent of patients who continue dialysis using a fistula.

The level of albumin in the blood has been used by CMS and the ESRD networks as a marker of nutritional status for patients. Inflammation and infection can affect albumin levels. Importantly, researchers have found a strong inverse correlation between albumin levels and mortality. There has been little change in the percent of patients with a mean albumin level that equals or exceeds the recommendation of the National Kidney Foundation.

Clinical indicators related to the management of bone and mineral disorders, a frequent comorbidity of kidney failure, suggest some improvement between 2003 and 2007. About 46 percent of hemodialysis and peritoneal dialysis patients achieved the recommended range for phosphorous and calcium levels. Since 2007, the percentage of dialysis patients achieving the recommended range for these two measures has remained constant.

Trends in outcomes for dialysis patients

In general, trends in outcomes—including mortality, access to kidney transplantation, and hospitalization—suggest that improvements in dialysis quality are still needed.

In the 2003–2008 period, overall adjusted mortality rates decreased but remained high among dialysis patients. By race, dialysis patients included in the “other” category (which includes Asian Americans and Native Americans) had the lowest adjusted mortality rate; this finding is a function of the lower mortality rate among Asian Americans. In contrast to the pattern seen in the general population, adjusted mortality was lower among African American dialysis patients than among whites (16.6 vs. 20.1 per 100 patient years, respectively, in 2008) (United States Renal Data System 2010). The presence of cardiovascular disease, which is the leading cause of death in dialysis patients, may explain some of the association of race with mortality in dialysis patients. Researchers have

**TABLE
6-4****Dialysis clinical indicators and outcomes continue to improve for some measures**

Outcome measure	2003	2005	2007	2008	2009
Percent of in-center hemodialysis patients					
Receiving adequate dialysis	94%	93%	94%	95%	95%
Anemia measures					
Mean hemoglobin 10–12 g/dL	48	44	49	57	62
Mean hemoglobin ≥ 13 g/dL*	15	17	14	9	7
Mean hemoglobin < 10 g/dL*	6	5	6	6	6
Dialyzed with an AV fistula	33	39	47	50	53
Nutritional status	37	33	34	35	35
Phosphorous and calcium management	39	42	46	45	46
Percent of peritoneal dialysis patients					
Receiving adequate dialysis	N/A	90%	89%	88%	89%
Anemia measures					
Mean hemoglobin 10–12 g/dL	45%	44	48	52	57
Mean hemoglobin ≥ 13 g/dL*	21	22	18	14	12
Mean hemoglobin < 10 g/dL*	7	7	7	9	10
Nutritional status	21	20	20	19	18
Phosphorous and calcium management	40	44	46	45	47
	2003	2005	2006	2007	2008
Vascular access complications rate per hemodialysis patient year					
Catheter					
Sepsis events*	2.9	2.2	1.6	2.3	N/A
AV graft					
Declotting procedures*	0.4	0.4	0.4	0.5	N/A
Sepsis events*	0.7	0.8	0.7	0.6	N/A
AV fistula					
Declotting procedures*	0.1	0.1	0.1	0.1	N/A
Sepsis events*	0.5	0.4	0.4	0.5	N/A
Percent of prevalent dialysis patients wait-listed for a kidney					
All	15.2%	15.9%	16.3%	16.8%	17.0%
White	14.2	14.8	15.2	15.7	15.9
African American	15.5	16.3	16.7	17.3	17.5
Native American	14.0	14.2	14.5	15.0	15.5
Asian American	24.4	25.2	25.2	25.6	25.6
Renal transplant rate per 100 dialysis patient years					
All	4.8	4.8	4.8	4.4	4.2
White	5.9	5.7	5.6	5.1	4.8
African American	3.1	3.2	3.2	3.0	2.9
Native American	3.3	3.4	4.6	4.4	4.3
Asian American	5.3	5.5	6.6	7.5	7.2
One-year survival for new dialysis patients					
All	78.1%	78.9%	79.6%	79.9%	N/A
White	77.0	77.7	78.4	78.6	N/A
African American	79.3	80.3	80.9	81.5	N/A
Other	84.2	85.0	85.3	86.4	N/A
Annual mortality rate per 100 dialysis patient years					
All*	21.4	20.5	20.1	19.3	18.6
White*	23.2	22.2	21.7	20.8	20.1
African American*	19.2	18.7	18.1	17.3	16.6
Other*	16.4	15.4	14.9	14.2	13.7
Inpatient admission rate per dialysis patient					
All*	2.0	2.0	2.0	1.9	1.9
White*	2.0	2.0	2.0	1.9	1.9
African American*	2.0	2.0	2.0	2.0	1.9
Native American*	2.0	1.9	1.8	1.8	1.7
Asian American*	1.4	1.5	1.4	1.4	1.4

Note: g/dL (grams/deciliter), N/A (not available), AV (arteriovenous). Other includes Asian Americans and Native Americans. Data on dialysis adequacy, use of fistulas, and anemia management represent percent of patients meeting CMS's clinical performance measures. United States Renal Data System adjusts data by age, gender, race, and primary diagnosis of end-stage renal disease.
* Lower values indicate higher quality.

Source: Compiled by MedPAC from the Elab Project Report, Fistula First, and the United States Renal Data System (Fistula First 2011, Renal Network 11 2011, United States Renal Data System 2010).

Trends in kidney transplantation

Kidney transplantation is a life-saving medical procedure for which the demand far exceeds the transplantable organ supply. Transplantation improves clinical outcomes compared with dialysis. When no living kidney donor is available, end-stage renal disease (ESRD) patients must rely on the limited supply of cadaveric donor organs. Although the principle of equity is emphasized in the distribution of this limited resource, several studies have documented that kidney transplantation rates differ by patients' demographic and socioeconomic characteristics.

For example, access to kidney transplantation and organ donation rates vary by race. Data from the United States Renal Data System show that in 2008:

- White ESRD patients accounted for 61 percent of ESRD patients and received 65 percent of transplants.
- African Americans accounted for 32 percent of ESRD patients and received 24 percent of transplants.
- Asian Americans and Native Americans together accounted for 6 percent of ESRD patients and received 10 percent of transplants.

However, in the recent five-year period between 2003 and 2008, transplantation rates changed somewhat across racial groups. Transplantation rates increased for

Asian Americans and Native Americans (Table 6-4). During this period, the rates for African Americans declined slightly from 3.1 to 2.9 transplants per 100 dialysis patients, while the rates for whites declined even more, from 5.9 to 4.8 per 100 dialysis patients.

The factors affecting access to kidney transplantation are complex. Unequal transplantation rates result in part from differences in the clinical appropriateness of patients as candidates for transplantation. Some patients are not able to receive a transplant because of the presence of medical contraindications—such as a recent history of substance abuse, the presence of cancer, a serious infection (including from dental disease), and significant cardiovascular disease.

Lower rates of renal transplantation, particularly among minority patients, also partly reflect the immunologic (including blood type and antibodies in the blood) matching process of donors to recipients. Reducing the number of biological mismatches improves the outcomes of kidney transplantation; as a result, the matching process gives priority to candidates who have fewer mismatches. Researchers have reported that because of racial and ethnic differences in the frequency of alleles (any one of two or more genes) at a given site on a chromosome, whites are more likely than people in other racial and ethnic groups to find a good match in the cadaver kidney pool (Roberts et al. 2004). This difference, coupled with the matching process, increases the transplantation rate among white

(continued next page)

reported that, compared with African American dialysis patients, white dialysis patients are at increased risk of developing atherosclerotic cardiovascular disease (even after adjusting for traditional cardiovascular and dialysis-related risk factors) and that this increased risk may contribute to the higher risk of mortality in whites than in African Americans (Parekh et al. 2005).

We looked at several measures that examine access to kidney transplantation, because it is widely believed that kidney transplantation is the best treatment option for ESRD patients. Transplantation reduces mortality and improves patients' quality of life (Eggers 1988, Kasiske

et al. 2000, Laupacis et al. 1996, Ojo et al. 1994). The proportion of dialysis patients accepted on the kidney transplant waiting list showed little change over time (Table 6-4, p. 135).

We also examined rates of kidney transplantation in the 2003–2008 period. In 2008, the United States Renal Data System (USRDS) reported that 17,413 individuals underwent transplantation, which represents about 22 percent of the 77,684 patients wait-listed for a kidney in that year. Between 2003 and 2006, rates of kidney transplantation remained relatively steady (Table 6-4, p. 135) (United States Renal Data System 2010). However,

Trends in kidney transplantation (cont.)

candidates and reduces access for candidates with less common blood types and antibodies in the blood, including those who are members of minority groups (Roberts et al. 2004).

Differences in access may also stem from differences in transplants from live donors. In 2008, transplants from live donors accounted for about 34 percent of procedures, while kidney transplants from deceased donors accounted for 65 percent of procedures (United States Renal Data System 2010). By race, whites accounted for 74 percent of live donor procedures, compared with 14 percent for African Americans and 11 percent for Asian Americans and Native Americans. Researchers have noted that there are fewer living donors among African Americans, increasing their dependence on cadaver organs (Young and Gaston 2000). According to the Health Resources and Services Administration, because certain blood types are more common in ethnic minority populations, increasing the number of minority live donors can increase the frequency of transplants in minority populations (Health Resources and Services Administration 2010).

Differences in kidney transplantation rates may also reflect patient and provider factors. Possible patient-level factors include lack of knowledge about transplantation, concerns about surgery and adverse effects of medication, and mistrust of the medical system. Provider-level factors that may affect access to kidney transplantation include clinicians' subconscious bias and transplant center characteristics.

However, in analyses controlling for some of these demographic and clinical characteristics, differences in access to kidney transplantation persisted. Researchers have examined the sequential steps that lead to transplantation (a patient's medical suitability and possible interest in a transplant, definite interest in a transplant, completion of the pretransplant workup, and moving up the waiting list to eventual transplantation) and have found that access to cadaveric kidney transplantation is significantly related to patients' race, sex, and income. For example, compared with whites, men, and higher income patients, African Americans, women, and lower income patients were less likely to complete the pretransplant workup (Alexander and Sehgal 1998). After referral to a transplant center, the three factors that medical professionals evaluate to determine a good candidate are the individual's physical and mental health and whether the individual's insurance pays for the medicines needed after transplantation (American Society of Transplantation 2006, National Institute of Diabetes and Digestive and Kidney Diseases 2008).

To increase the number of transplants overall, there is now an expanded donor waiting list in addition to the standard donor waiting list. A kidney from the expanded donor list is from an older donor or an individual who has less-than-normal kidney function. To increase transplants among minority populations, some researchers have advocated eliminating the priority given to one type of immunologic matching (Roberts et al. 2004). ■

between 2006 and 2008, the rate of kidney transplantation and the total number of procedures declined.¹⁴

Between 2006 and 2008, all racial groups except Asian Americans experienced a decrease in the rate of kidney transplantation. During that period, kidney transplants from living donors declined by 4 percent, while transplants from deceased donors declined by 1 percent (United States Renal Data System 2010). The text box summarizes issues related to the distribution of kidney transplantation across the ESRD population.

Overall rates of hospitalization remained steady at about two admissions per dialysis patient per year.

Between 2003 and 2008, conditions related to ESRD—cardiovascular conditions, infections, and vascular access complications—accounted for the majority of inpatient admissions for hemodialysis patients. In 2008, the most current year for which data are available, cardiovascular conditions accounted for nearly 30 percent of admissions for hemodialysis patients, infections accounted for 25 percent, and vascular access complications accounted for 13 percent (United States Renal Data System 2010). For peritoneal dialysis patients, between 2003 and 2008, the leading cause of admission was infections followed by cardiovascular conditions and access complications. In

2008, infections accounted for 34 percent of admissions, cardiovascular conditions accounted for 25 percent, and access complications accounted for 15 percent (United States Renal Data System 2010).

Dialysis quality by type of organization in 2008

Data published by USRDS show that dialysis quality, as measured by standardized hospitalization and mortality rates, varies across types of dialysis organizations, including large dialysis chains, smaller dialysis chains, independent facilities, and hospital-based facilities.

In 2008, for all patients, small dialysis chains had slightly lower standardized hospitalization and mortality rates than large dialysis chains; independent facilities had higher standardized hospitalization rates. Although hospital-based facilities had lower hospitalization rates, they had the highest standardized mortality rates among the different facility types.

Outcomes by race varied between and within organizations. Some organizations had lower hospitalization and mortality rates for African Americans and higher ones for whites. By contrast, in hospital units, standardized hospitalization rates were lower for whites and higher for African Americans. The third largest dialysis chain in 2008 had the lowest standardized hospitalization and mortality rates for all patients as well as separately for whites and African Americans.

Providers' access to capital: Growth trends suggest access is adequate

Providers need access to capital to improve their equipment and open new facilities so they can accommodate the growing number of patients requiring dialysis. Between 2008 and 2010, the large and small dialysis chains showed similar growth rates, which suggests that both small and large providers have adequate access to capital. During this period, the number of hemodialysis stations operated by the two largest organizations (Fresenius Medical Care North America and DaVita) grew by 6 percent; in comparison, the number of hemodialysis stations operated by smaller freestanding chains grew by an average of 4 percent.

The two large dialysis organizations as well as medium-sized companies appeared to have adequate access to capital in 2010. For example, in 2010, Fresenius acquired Gambro's peritoneal dialysis business and raised its acquisition spending guidance to \$500 million from \$400 million. DaVita signed a new \$3 billion secured credit

agreement, and Deutsche Bank concluded that there was a solid group of well-capitalized medium-sized dialysis organizations (Deutsche Bank 2010). In addition, at least six dialysis companies were owned by private equity groups (Deutsche Bank 2010). U.S. Renal Care raised \$25 million in new equity in 2010 to complete its acquisition of Dialysis Corporation of America, and a private equity firm acquired American Renal Associates.

The two largest dialysis organizations enjoyed mostly positive ratings from investor analysts in 2010, who have generally viewed dialysis providers' fundamentals—including the aging of the U.S. population, the higher incidence of diabetes, and recurring demand—and low sensitivity to economic cycles as favorable from an economic perspective. In addition, investor analysts remain favorable about the dialysis sector because of its record of solid growth rates and available "free cash flow," the cash flow available for distribution among an organization's securities holders. Both Fresenius and DaVita were included in the top 10 health care facility stocks with the highest cash flow per share between 2009 and 2010.

After considering the new payment method, investor analysts remain positive about the long-term economic prospects for the dialysis sector. For example, Deutsche Bank stated that "bundling could favorably alter the economics for dialysis providers over both a medium-term and long-term basis." A key point made by Deutsche Bank is that Medicare bundling should lead to greater efficiency, and that this change will come through a variety of means, including cost-effective utilization and mix of resource inputs (especially drugs and laboratory services) and a gradual shift over time toward home-based dialysis.

Medicare payments and providers' costs

Each year, we assess freestanding providers' costs and the relationship between Medicare's payments and freestanding providers' costs by considering whether current costs approximate what efficient providers are expected to spend on delivering high-quality care. The latest and most complete data available on freestanding providers' costs are from 2009.

Appropriateness of current costs

To assess the appropriateness of costs, we examine whether aggregate dialysis costs provide a reasonable representation of costs that efficient providers would incur in furnishing high-quality care. Between 2004 and 2009, the cost per treatment for composite rate services

rose by 3.2 percent per year. (This growth rate is the same rate we reported last year for the period 2003 to 2008 for freestanding facilities.) Variation in cost growth across freestanding dialysis facilities shows that some facilities were able to hold their cost growth well below that of others. For example, between 2004 and 2009, per treatment costs increased by 1.4 percent per year for facilities in the 25th percentile of cost growth, compared with 5.0 percent for facilities in the 75th percentile. The growth in cost per treatment during that period partly stems from rising general and administrative costs, which increased by 6 percent per year and accounted for nearly 30 percent of the total cost per treatment in 2009. General and administrative costs include expenses associated with legal and accounting services, record-keeping and data-processing tasks, telephone and other utilities, home office costs, and malpractice premiums. By contrast, between 2004 and 2009, capital and labor costs (associated with direct patient care) increased by 3 percent and 2 percent per year, respectively; other direct medical costs decreased by 0.2 percent per year. In 2009, capital, labor, and other direct medical costs accounted for 20 percent, 41 percent, and 11 percent, respectively, of the total cost per treatment. Cost report data do not permit us to assess which cost elements contribute to the high rate of cost growth within the general and administrative cost category.

Medicare margin for freestanding providers

The Commission assesses current payments and costs for dialysis services for freestanding dialysis facilities by comparing Medicare's payments for composite rate services and dialysis drugs with providers' Medicare-allowable costs. The latest and most complete data available on payments and costs are from 2009.

For 2009, we estimate that the aggregate Medicare margin for composite rate services and dialysis drugs was 3.1 percent. The distribution of margins in 2009 shows wide variation in performance among freestanding facilities. One-quarter of facilities had margins at or below -5.0 percent, but half the facilities had Medicare margins of at least 3.6 percent, and one-quarter of facilities had Medicare margins of at least 12.3 percent.

The aggregate margin of 3.1 percent in 2009 is relatively unchanged from the 2008 aggregate margin of 3.2 percent. Changes in drug cost and payment per treatment partly explain this direction. Between 2008 and 2009, drug payment per treatment increased by more than 5 percent while drug cost per treatment increased by 3 percent. As in earlier years, urban facilities had higher

**TABLE
6-5**

Medicare margin in 2009 varies by type of freestanding provider

Provider type	Percent of spending	Medicare margin
All	100%	3.1%
Affiliated with one of the two large dialysis organizations	69	4.4
All others	31	0.3
Urban	83	4.1
Rural	17	-1.4

Source: Compiled by MedPAC from 2009 cost report and outpatient claims submitted by facilities to CMS.

margins than rural facilities (4.1 percent vs. -1.4 percent, respectively), and facilities affiliated with the two largest dialysis organizations tended to have higher margins than other freestanding facilities (4.4 percent vs. 0.3 percent, respectively) (Table 6-5).

The Commission is concerned that the gap in the Medicare margin widened between urban and rural facilities between 2008 and 2009 (Medicare Payment Advisory Commission 2010b). We will continue to monitor the adequacy of Medicare's payments for rural and urban facilities in the upcoming years. As mentioned earlier, some rural facilities are expected to benefit from the low-volume adjustment that is included in the new payment method.

On the basis of 2009 payment and cost data, we project that the 2011 aggregate margin will be 1.3 percent. This estimate reflects:

- the 2 percent reduction in total spending that MIPPA mandated to begin in 2011,
- the 3.1 percent budget-neutrality payment reduction in 2011,
- the 2011 payment update of 2.5 percent, and
- a conservative behavioral offset to account for efficiencies anticipated under the new payment method.

The conservative behavioral offset included in the 2011 margin projection is based on reports that providers will become more efficient in the delivery of drug and laboratory tests. One investor predicted that use of erythropoietin will decrease by between 10 percent and

15 percent in 2011 (Wells Fargo Securities 2010). Another investor analyst predicted that erythropoietin use will decline by 20 percent between 2011 and 2014 (Deutsche Bank 2010). As mentioned earlier, an industry association reported that a substantially greater proportion of facilities have opted into the new payment method (about 90 percent) than CMS estimated (43 percent), suggesting that most facilities can operate within the provisions of the new payment method. Published studies also suggest that providers can decrease costs while maintaining quality (Hasegawa et al. 2010, Kaufman et al. 1998, Pizzi et al. 2006). Charytan summarized the following selected strategies to maximize efficiencies in the management of anemia: switching from intravenous to subcutaneous routes, lowering hemoglobin targets and doses in hyporesponsive patients, increasing administration of intravenous iron, increasing use of home dialysis, and optimizing ESA dosing intervals (Charytan 2010).

How should Medicare payments change in 2012?

CMS measures price inflation for the goods and services associated with the composite rate. CMS's latest forecast of this index for calendar year 2012 is 2.9 percent.

Update recommendation

The evidence on payment adequacy suggests that a moderate update of the composite rate is in order. Therefore, the Commission recommends that the Congress update the outpatient dialysis payment rate by 1 percent for calendar year 2012.

RECOMMENDATION 6

The Congress should update the outpatient dialysis payment rate by 1 percent for calendar year 2012.

RATIONALE 6

Most of our indicators of payment adequacy are positive, including beneficiaries' access to care, the supply and capacity of providers, volume of services, quality of care, and access to capital. The Medicare margins in 2008 (3.2 percent) and 2009 (3.1 percent) remained constant.

IMPLICATIONS 6

Spending

- This recommendation would decrease federal program spending relative to current law by less than \$50 million in 2012 and by less than \$1 billion over five years.

Beneficiary and provider

- We do not anticipate any negative effects on beneficiary access to care. This recommendation is not expected to affect providers' willingness or ability to serve beneficiaries.

Under current law, if current projections were used, the payment rate would be updated by the ESRD market basket less a productivity adjustment, an update of 1.6 percent. ■

Endnotes

- 1 To be eligible for Medicare ESRD benefits: (1) the individual must file an application for Medicare with Social Security; (2) a physician must certify that the individual requires chronic dialysis or a kidney transplant to maintain life; and (3) the individual must be entitled to a monthly benefit under Social Security, be fully or currently insured under Social Security, or be the spouse or dependent child of a person meeting these Social Security requirements. Individuals qualify for Social Security by earning Social Security credits when employed in a job that pays Social Security taxes. Generally, individuals are fully insured under Social Security if they have 40 credits of covered employment. Individuals are currently insured under Social Security if they have a minimum of 6 credits of covered employment in the three years before ESRD diagnosis (<http://www.ssa.gov/pubs/10072.html>). Individuals who are not eligible for Social Security have not earned a minimum number of credits toward retirement under Social Security.
- 2 New dialysis patients include those who are covered by Medicare and those who are not eligible for Medicare either because they do not meet the eligibility criteria (explained in Endnote 1) or because they have not yet applied for Medicare coverage.
- 3 Although some of these ESRD beneficiaries have a successful kidney transplant, we infer that an increasing proportion of them are on dialysis because: (1) the total number of dialysis patients grew by 4 percent per year between 2005 and 2008, while the total number of dialysis FFS beneficiaries grew by 1 percent per year; and (2) the proportion of all dialysis patients not covered by Medicare has remained constant during this time period.
- 4 Beneficiaries with ESRD on dialysis cannot join an MA plan unless they developed ESRD while already enrolled in an MA plan. Enrollment in an ESRD special needs plan or the ESRD demonstration program are exceptions to this statutory provision.
- 5 Clinical experts consider the glomerular filtration rate as the best measure of residual kidney function (National Kidney Foundation 2011). Lower values of this rate suggest reduced residual kidney function. Experts generally consider an estimated glomerular filtration rate of less than 15 milliliters (mL)/minute (min)/1.73 square meters (m²) as end-stage renal failure. Between 1995 and 2008, among newly treated dialysis patients, the estimated glomerular filtration rate increased by 3 percent according to the two methods used to calculate it (from 7.6 mL/min/1.73 m² to 11.1 mL/min/1.73 m² according to the Modification of Diet in Renal Disease equation and from 6.9 mL/min/1.73 m² to 10.5 mL/min/1.73 m² according to the Chronic Kidney Disease Epidemiology Collaboration equation) (United States Renal Data System 2010).
- 6 The MMA required that freestanding dialysis facilities' payments for dialysis drugs be based on their acquisition costs. Before the MMA, Medicare paid freestanding facilities a statutory rate for erythropoietin and 95 percent of the average wholesale price or a statutory rate for all other dialysis drugs.
- 7 CMS will award up to 10 points to each of the three quality measures. The scoring methodology will subtract 2 points from each measure's score for every 1 percentage point the facility's performance falls below the performance standard.
- 8 CMS provides annual Dialysis Facility Reports to facilities, ESRD Network Organizations, and state survey agencies that provide facility-specific and comparative information on patient characteristics, treatment patterns, hospitalizations, mortality, and transplantation patterns. In addition, the Dialysis Facility Reports contain practice patterns such as managing dose of dialysis, vascular access, and anemia.
- 9 Medicare's conditions for coverage are the requirements that dialysis facilities must meet to be certified under the Medicare program. In 2008, CMS issued a final rule updating dialysis facilities' conditions for coverage (Centers for Medicare & Medicaid Services 2008).
- 10 The Charlson index is a comorbidity scale in which a higher score means that more comorbidities are present. The mean Charlson index was 4.0 for facilities in business and closed facilities.
- 11 This analysis uses data from CMS's Dialysis Compare file to obtain street addresses for dialysis facilities and the Renal Management Information System file for beneficiaries' residence. Travel distances were calculated using the Environmental Systems Research Institute's ArcGIS and weighted based on the number of treatments the beneficiary received at the facility. Although not presented, we also found similar trends in travel distances for all dialysis FFS beneficiaries.
- 12 Two factors contributed to this slowdown. First, in March 2007, the FDA included a "black box warning" on ESA drug labels to advise physicians about ESA dosage adjustments: They should maintain the lowest hemoglobin level needed to avoid a blood transfusion. Hemoglobin indicates a patient's anemia status, measured as grams of hemoglobin per deciliter of blood (g/dL). The FDA added the warning based on evidence from recent studies showing that higher target hemoglobin values were associated with increased mortality and morbidity for patients with chronic kidney disease (who are not on dialysis) and for cancer patients. Second, in 2008,

CMS changed its national payment policy for ESAs based on the recent studies and the FDA warning about the risks associated with large doses of ESA and high hemoglobin levels. The policy change reduces payment for ESAs if providers do not reduce the dosage for a patient whose hemoglobin level exceeds 13 g/dL.

- 13 Physicians create an AV fistula by joining an artery to a vein under the patient's skin (frequently in the forearm). A few months are usually needed to allow the AV fistula to properly develop before it can be used during dialysis. Physicians may implant an AV graft for certain patients (including those with small or weak veins) who are not candidates for an AV fistula.

Like AV fistulas, AV grafts are implanted under the skin, usually in the patient's forearm. AV grafts use a soft plastic tube to join an artery and a vein. Compared with AV fistulas, AV grafts can be used sooner after placement, often within two to three weeks. A catheter placed in the patient's neck, chest, or leg is used as a temporary access when a patient needs dialysis immediately and is waiting for an AV fistula or AV graft to mature. A catheter is also used when an AV fistula or AV graft fails.

- 14 The number of kidney transplants declined from 18,059 in 2006 to 17,413 in 2008.

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CHAPTER

7

Skilled nursing facility services

R E C O M M E N D A T I O N

7 The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2012.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....

(For additional recommendations on improving the skilled nursing facility payment system, see text box on p. 165.)

Skilled nursing facility services

Chapter summary

Skilled nursing facilities (SNFs) furnish short-term skilled nursing and rehabilitation services to beneficiaries after a stay in an acute care hospital. Most SNFs are part of nursing homes that furnish long-term care, which Medicare does not cover. In 2009, 15,068 SNFs furnished covered care to just under 5 percent of fee-for-service (FFS) beneficiaries (1.6 million). In fiscal year 2010, Medicare spent \$26.4 billion on SNF care.

Assessment of payment adequacy

Most indicators of payment adequacy for SNFs are positive.

Beneficiaries' access to care—Access to SNF services remains stable for most beneficiaries, though minorities use SNF services less than other beneficiaries. We have not gathered empirical information on the reasons for these differences.

- **Capacity and supply of providers**—The number of SNFs has increased gradually since 2001. Three-quarters of beneficiaries live in a county with five or more SNFs, and less than 1 percent live in a county without one. Available SNF bed days increased 4 percent between 2008 and 2009. However, since 2004, the share of SNFs admitting medically complex patients decreased. As a result, some beneficiaries may have to wait to be placed in a SNF that will take them.
- **Volume of services**—Days and admissions on a per FFS beneficiary basis decreased slightly between 2008 and 2009, reflecting fewer hospital

In this chapter

- Are Medicare payments adequate in 2011?
- How should Medicare payments change in 2012?
- Medicaid trends

admissions (a prerequisite for Medicare coverage). Still, use rates were higher in 2009 than in 2006. Admission rates in 2009 for minority beneficiaries were lower than for white beneficiaries, though the difference was smaller than in 2008.

Quality of care—SNF quality of care in 2008 was basically unchanged from the prior year. Two indicators of quality in SNFs are the rates at which patients are discharged to the community within 100 days of admission and the rates at which patients are rehospitalized for conditions that potentially could have been avoided. Since 2000, measures show mixed results; the percent discharged to the community increased (indicating improved quality), while the percent rehospitalized exhibited almost no change. Risk-adjusted quality outcomes did not vary by race.

Providers' access to capital—Because most SNFs are part of a larger nursing home, we examine nursing homes' access to capital; it improved over last year but some investors are wary of the impact of states' budget difficulties. Any uncertainties in lending do not center on the adequacy of Medicare payments; from all accounts, Medicare remains a sought-after payer.

Medicare payments and providers' costs—Increases in payments between 2008 and 2009 outpaced increases in providers' costs, reflecting the continued concentration of days in the highest payment case-mix groups. In 2009, the average Medicare margin for freestanding SNFs was 18.1 percent.

Financial performance continued to differ substantially across the industry—a function of distortions in the prospective payment system and cost differences of providers. Compared with SNFs with relatively low margins, SNFs with the highest margins had greater shares of days in intensive rehabilitation case-mix groups and smaller shares of days in the medically complex groups. We found that freestanding SNFs with low Medicare margins had standardized costs per day (adjusted for differences in wages and case mix) that were 41 percent higher than SNFs with high Medicare margins. We also examined relatively efficient SNFs and found that it is possible to have costs well below average, above-average quality, and more than adequate Medicare margins.

Medicaid trends

As required by the Patient Protection and Affordable Care Act of 2010, we report on Medicaid utilization, spending, and non-Medicare margins—in the absence of information on Medicaid margins. Medicaid finances mostly long-term care services provided in nursing homes but also covers copayments for dual-eligible beneficiaries who stay 21 or more days in a SNF. The number of Medicaid-certified facilities decreased between 2000 and 2009 but Medicaid-covered days and spending increased during this period. Non-Medicare margins (for all lines of business) were negative between 2000 and 2009, but total margins (for all payers and all lines of business) were positive. ■

**TABLE
7-1**

A growing share of Medicare stays and payments go to freestanding SNFs and for-profit SNFs

Type of SNF	Facilities		Medicare-covered stays		Medicare payments	
	2005	2009	2005	2009	2005	2009
Total number	15,001	15,068	2,444,796	2,369,016	\$18.2 billion	\$24.1 billion
Freestanding	92%	94%	87%	92%	93%	96%
Hospital based	8	6	13	8	7	4
Urban	67	70	79	81	81	83
Rural	33	30	21	19	19	17
For profit	68	69	66	69	72	74
Nonprofit	28	26	30	26	25	22
Government	5	5	4	4	3	3

Note: SNF (skilled nursing facility). Totals may not sum to 100 percent due to rounding and missing values.

Source: MedPAC analysis of the Provider of Services, Medicare Provider Analysis and Review files, and Certification and Survey Provider Enhanced Reporting on CMS's Survey and Certification Providing Data Quickly system for 2001–2009.

Background

Skilled nursing facilities (SNFs) provide short-term skilled nursing care and rehabilitation services, such as physical and occupational therapy and speech–language pathology services. Examples of SNF patients include those recovering from surgical procedures, such as hip and knee replacements, or from medical conditions, such as stroke and pneumonia. About 1.6 million fee-for-service (FFS) beneficiaries (or about 5 percent) used SNF services at least once in 2009 and program spending totaled an estimated \$26.4 billion in fiscal year 2010.

Medicare covers up to 100 days of SNF care after a medically necessary hospital stay of at least three days. Of the beneficiaries who use post-acute care (defined as home health, inpatient rehabilitation, long-term care hospital, or SNF services after a hospitalization), 29 percent use SNF services. For beneficiaries who qualify for a covered stay, Medicare pays 100 percent of the payment rate for the first 20 days of care. Beginning with day 21, beneficiaries are responsible for copayments. For calendar year 2011, the copayment is \$141.50 per day.

Most SNFs are parts of nursing homes that treat patients who generally require less intensive, long-term care services than the skilled services required for Medicare

coverage. The term “skilled nursing facility” refers to a provider that meets Medicare requirements for Part A coverage.¹ The vast majority (more than 90 percent) of SNFs are dually certified as a SNF and as a nursing home. Thus, a facility that provides skilled care often also furnishes long-term care services that Medicare does not cover. In 2009, there were 15,068 facilities that were certified as Medicare providers, Medicaid providers, or both. Medicaid is the predominant payer in nursing homes, accounting for 65 percent of days. The Patient Protection and Affordable Care Act of 2010 required the Commission to examine nursing home spending, utilization, and financial performance trends under the Medicaid program (p. 164).

The vast majority of SNFs are freestanding, with 6 percent being hospital based (Table 7-1). Between 2005 and 2009, freestanding facilities and for-profit facilities accounted for growing shares of Medicare stays and spending. For example, in 2009, 69 percent of SNFs were for profit and treated about the same share of stays but accounted for almost three-quarters of Medicare payments.

Medicare-covered SNF patients are typically a small share of a facility’s total patient population but a larger share of the facility’s payments. At the median in 2009, Medicare-covered SNF days made up 12 percent of total patient days in freestanding facilities but 23 percent of facility revenue.

**TABLE
7-2**

Broad case-mix groups used for payments before fiscal year 2011

Patient group	Types of patients included in group
Broad resource utilization groups	
Clinically complex	Patients who are comatose; have burns, septicemia, pneumonia, internal bleeding, or dehydration; or receive dialysis or chemotherapy.
Extensive services	Patients who have received intravenous medications or suctioning in the past 14 days, required a ventilator/respirator or tracheostomy care, or received intravenous feeding within the past 7 days.
Special care	Patients with multiple sclerosis, surgical wounds, skin ulcers, or cerebral palsy; those who receive respiratory services seven days per week; or those who are aphasic or tube fed.
Rehabilitation	Groups based on minutes of rehabilitation per week: Ultra high: patients received over 720 minutes Very high: patients received 500–719 minutes High: patients received 325–499 minutes Medium: patients received 150–324 minutes Low: patients received 45–149 minutes
Rehabilitation plus extensive services	Patients received enough rehabilitation services to qualify them for a rehabilitation case-mix group and they received one or more extensive services.
Groups used in MedPAC analyses	
Medically complex	Clinically complex and special care cases. Extensive service groups are excluded from this definition because days can be assigned to them based on services furnished before admission to the skilled nursing facility. CMS found that services provided during the prior hospital stay were not an accurate proxy for medical complexity (Centers for Medicare & Medicaid Services 2009).
Intensive rehabilitation	Ultra high rehabilitation, ultra high rehabilitation plus extensive services, very high rehabilitation, and very high rehabilitation plus extensive services cases.
Note: Table reflects the resource utilization groups (RUGs), version III. In October 2011, CMS implemented revised case-mix groupings, RUG version IV. These broad groupings remain intact with the RUG-IV groups.	

SNF prospective payment system and its shortcomings

Medicare uses a prospective payment system (PPS) to pay for each day of service.² Information gathered from a standardized patient assessment instrument—the Minimum Data Set—is used to classify patients into case-mix categories, called resource utilization groups (RUGs). RUGs differ by the services furnished to a patient (such as the amount and type of therapy furnished and the use of respiratory therapy and specialized feeding), the patient’s clinical condition (such as whether the patient

has pneumonia), and the patient’s need for assistance to perform activities of daily living (such as eating and toileting).

The Commission has previously made recommendations related to three shortcomings of the SNF PPS (Medicare Payment Advisory Commission 2008b). First, the PPS does not adequately adjust payments to reflect the variation in providers’ costs for nontherapy ancillary (NTA) services (for most patients these services are predominantly drugs). Payments for NTA services are tied to the nursing component, even though NTA costs

do not necessarily vary with, and are much more variable than, staff time. The Commission recommended that a separate payment component be established to pay for NTA services so that payments are targeted to patients with high NTA care needs. This past year, we explored alternative designs that met the criteria laid out for this component by CMS (Wissoker and Garrett 2010).³ The revised models retained most of their ability to predict the variation in NTA costs but are simpler and would be easier to implement than the original design. The Commission and CMS staff have discussed these results, but to date CMS has not taken action to correct this problem.

A second shortcoming is that because payments increase with the provision of therapy, SNFs have a financial incentive to furnish these services. The Commission recommended replacing the existing therapy component with one that bases payments on patient characteristics so that payments vary with care needs, not service provision. CMS has not corrected this problem.

A third shortcoming is that the SNF PPS does not have an outlier policy to help defray the cost of exceptionally high-cost stays. CMS does not have the authority to establish an outlier policy.

CMS's revisions to the SNF PPS

CMS has taken steps to enhance payments for medically complex care but more work remains. In 2010, CMS revised the case-mix classification system (to RUGs version IV) by redefining many of the groupings, adding 13 case-mix groups (to 66 groups) for medically complex patients (see Table 7-2 for definitions), and tightening the definitions of the extensive services groups. At the same time, CMS shifted program dollars away from therapy care and toward medically complex care (Centers for Medicare & Medicaid Services 2009).⁴ These changes will make treating medically complex patients more financially attractive. However, because payments for NTA services continue to be tied to the nursing component, payments may not match a patient's NTA care needs. CMS needs to establish separate payments for NTA services so that patients with high NTA care needs are not disadvantaged by the PPS.

To control therapy provision, CMS modified the way it counts therapy services furnished concurrently (when a therapist supervises multiple patients at the same time and patients are engaged in different therapy activities). To accurately capture the fewer resources required to furnish therapy concurrently, patients who receive therapy services

concurrently will qualify for less intensive rehabilitation case-mix groups than under the previous counting rules. Using the same logic, CMS should revise the way it counts group therapy minutes. Group therapy occurs when a therapist supervises multiple patients at the same time and patients are engaged in the same therapy activities. In a letter to CMS, the Commission urged CMS to make similar changes to the way group therapy services are counted (Medicare Payment Advisory Commission 2010). Without this change, providers have a financial incentive to furnish therapy in groups, even though the modality may not provide the most benefit to the patient.

Even with more accurate counts of minutes, the provision of therapy will continue to drive Medicare's payments to SNFs. The Commission supports basing payments on care needs, not service provision. To date, CMS has not addressed this fundamental problem in the PPS.

Are Medicare payments adequate in 2011?

Indicators of payment adequacy are positive for SNFs. To make this assessment, we analyzed access to care (including the supply of providers and volume of services), the quality of care, provider access to capital, Medicare payments in relation to costs to treat Medicare beneficiaries, and changes in Medicare payments and costs. We also compared the performance of SNFs with relatively high and low Medicare margins.

Beneficiaries' access to care: Access is stable for most beneficiaries

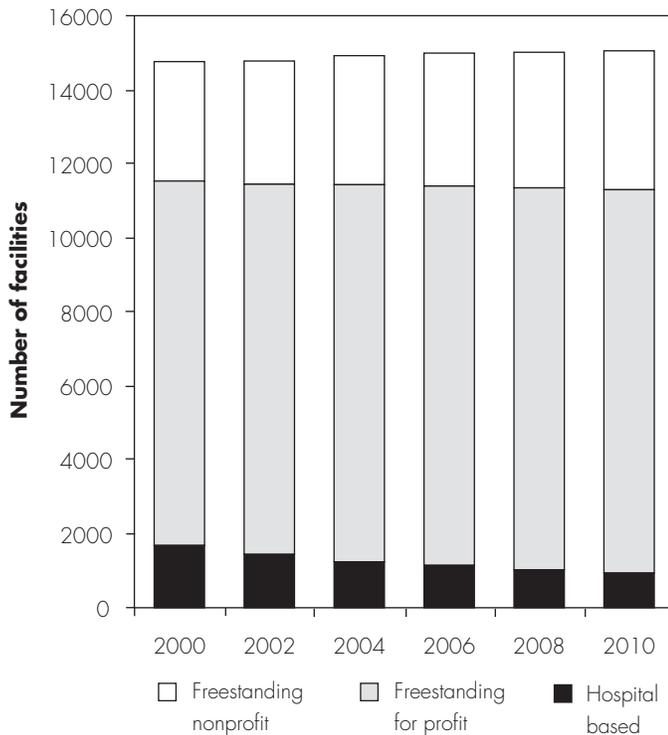
We do not have direct measures of access. Instead, we consider the supply and capacity of providers and evaluate changes in volume. Since 2000, the number of SNFs and bed days available increased, including the recent period between 2008 and 2009. After steadily increasing between 2006 and 2008, admissions and days per 1,000 FFS beneficiaries declined between 2008 and 2009. This decrease is likely due to the decline in hospital admissions, a prerequisite for Medicare coverage.

Capacity and supply of providers: Supply remains stable

Since 2000, the number of SNFs participating in the Medicare program slowly increased from 14,778 to 15,070 in 2010 (Figure 7-1, p. 152). Between 2009 and 2010, 97

FIGURE 7-1

The number of SNFs grew slightly since 2000, but the mix has shifted toward freestanding facilities



Note: SNF (skilled nursing facility). Counts do not include swing beds.

Source: MedPAC analysis of data from the Certification and Survey Provider Enhanced Reporting on CMS's Survey and Certification Providing Data Quickly system for 2000–2010.

facilities began participating in the program, all but one were freestanding, and almost two-thirds of them were for profit.⁵ One hospital-based unit began participating in the Medicare program in 2010, but many more stopped, so there were 30 fewer hospital-based facilities by the end of 2010. Less than 1 percent of SNFs stopped participating in the Medicare program last year and most of those terminations were voluntary.

Most beneficiaries live in counties with multiple SNFs. Three-quarters of beneficiaries live in counties with 5 or more SNFs, 59 percent live in counties with 10 or more, and less than 1 percent of beneficiaries live in a county without a SNF.

The ownership mix has been stable since 2005, with for-profit facilities composing 69 percent of the industry. In 2010, hospital-based units made up 6 percent of the industry, the same share as in 2009. Since 2000, there has

been a very small increase in the share of freestanding facilities that are nonprofit, from 25 percent to 27 percent.

Other measures of capacity include the number of SNF beds available during the year and occupancy rates. SNF bed days available (the days available for occupancy after adjusting for beds temporarily out of service due to, e.g., renovation or patient isolation) increased 4 percent between 2008 and 2009 in freestanding facilities. Since 2001, the increase in bed days available averaged 7 percent a year. In 2009, the average occupancy rate was 83 percent, slightly down from 2005.

While supply remains stable, the number of SNFs that treat medically complex patients (for definitions, see Table 7-2, p. 150) continues to decline. Between 2004 and 2008, the number of facilities admitting clinically complex and special care patients decreased (by 6 percent and 5 percent, respectively), even though the number of SNFs remained about the same (Figure 7-2). As a result, the distributions of medically complex admissions were more concentrated in fewer SNFs compared with rehabilitation admissions.⁶

There was wide variation in the share of facility admissions classified into medically complex case-mix groups. In 2008, although the median share of medically complex admissions to a facility was 2 percent, there were 149 facilities with at least 31 percent of their admissions in these groups.⁷ These 149 facilities were disproportionately:

- **Rural.** Rural SNFs made up 48 percent of this highest share group compared with one-third of the industry. Rural SNFs located in the least populated counties (those with less than 2,500 population and not adjacent to a metropolitan area) made up less than 2 percent of all SNFs but 10 percent of SNFs with the highest shares of medically complex admissions.
- **Nonprofit.** Nonprofit SNFs made up 26 percent of the industry but one-third of this highest share group.
- **Hospital based.** Hospital-based SNFs made up 6 percent of the industry but more than one-quarter of facilities with the highest shares.

The decline in the number of SNFs willing or able to treat special care and clinically complex patients may reflect many factors. First, the relative attractiveness of the payments for rehabilitation case-mix groups may encourage some SNFs to furnish enough therapy

services to medically complex patients so they qualify for higher payment rehabilitation case-mix groups (rather than the special care or clinically complex case-mix groups). Second, certain medically complex care (such as ventilator, tracheostomy, and wound care) requires specific facility and staffing capabilities that are not available at all SNFs. These service offerings may meet some facilities' missions or complement other services they provide. Third, some areas of the country lack inpatient rehabilitation and long-term care hospitals so that patients who might be placed in these alternative facilities are treated in SNFs.

Before the revisions to the SNF PPS in 2011, SNFs had a financial advantage to treat rehabilitation patients over medically complex patients. As a result, some medically complex patients could experience delays in being placed in a SNF. Because racial minorities make up a disproportionate share of medically complex admissions, minority beneficiaries may have been more likely to experience delays in being transferred to a SNF or to be placed in SNFs further from their homes compared with other beneficiaries.⁸ Beginning in 2011, the expanded number of case-mix groups for medically complex patients and the increased payments for the nursing component of the daily payment (see discussion on p. 151) may encourage some facilities to admit these patients.

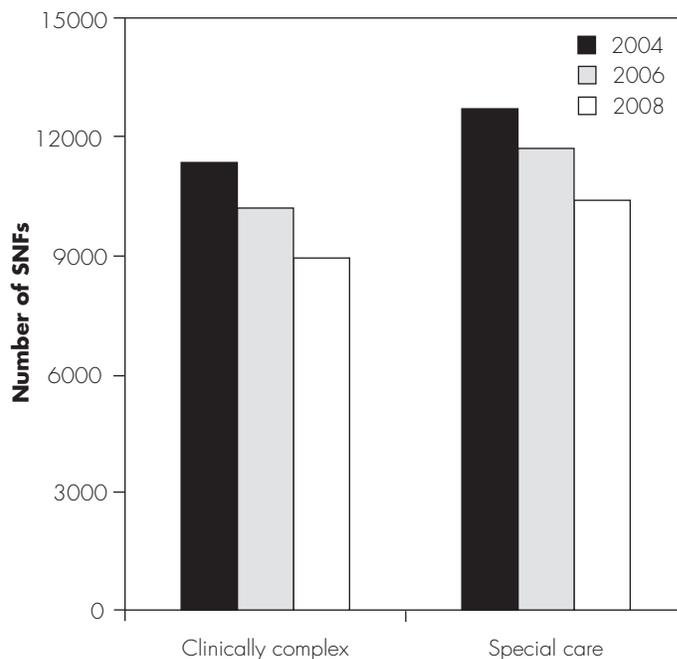
Volume of services: After steady increase, small declines between 2008 and 2009

In 2009, the share of FFS beneficiaries who used SNF services remained at just under 5 percent. We examine utilization on a FFS beneficiary basis because the counts of users, days, and admissions do not include service use by beneficiaries enrolled in Medicare Advantage (MA) plans. Because MA enrollment continues to increase, changes in reported utilization could reflect a declining number of FFS beneficiaries rather than reductions in service use.

After increasing between 2006 and 2008, SNF volume per FFS beneficiary declined between 2008 and 2009 (Table 7-3, p. 154). Between 2008 and 2009, admissions went down 1.6 percent, while covered days were 0.7 percent lower. The small decline in admissions is expected because inpatient hospital stays, which are required for Medicare coverage of SNF services, also declined. Despite the reduction, use levels were higher in 2009 than they were in 2006.

FIGURE 7-2

The number of SNFs that admitted clinically complex and special care cases decreased between 2004 and 2008



Note: SNF (skilled nursing facility). Category based on admitting case-mix group assignment. The clinically complex category includes patients who are comatose; have burns, septicemia, pneumonia, internal bleeding, or dehydration; or receive dialysis or chemotherapy. The special care category includes patients with multiple sclerosis or cerebral palsy, those who receive respiratory services seven days per week, or those who are aphasic or tube fed.

Source: MedPAC analysis of DataPro data from CMS.

SNF use is uneven among beneficiaries of different races, raising concerns about minorities' access to care (Figure 7-3, p. 155). In 2009, admissions per 1,000 FFS beneficiaries were 16 percent higher for whites than for beneficiaries of other races. Although admission rates were lower, lengths of stay for beneficiaries of other races were longer than those for white beneficiaries, perhaps reflecting differences in case mix. We have not examined these racial differences to know, for example, whether minority beneficiaries use other post-acute services instead of SNF care or whether minority beneficiaries are less likely to be hospitalized for conditions that typically require subsequent SNF care. Other studies have found that racial differences in SNF use have narrowed over time and that racial groups differ in their use of post-acute care services (Konetzka and Werner 2009). White beneficiaries are more likely than minorities to use assisted living

**TABLE
7-3**

Small decline in SNF volume between 2008 and 2009

	2006	2007	2008	2009	Percent change	
					2006-2009	2008-2009
Volume per 1,000 fee-for-service beneficiaries						
Covered admissions	71	72	73	72	1.4%	-1.6%
Covered days (in thousands)	1,874	1,921	1,977	1,963	4.7	-0.7
Covered days per admission	26.4	26.7	27.0	27.3	3.4	0.9

Note: SNF (skilled nursing facility). Data include 50 states and the District of Columbia.

Source: Calendar year data from CMS, Office of Research, Development, and Information.

facilities and racial minorities are more likely to use home health care and informal home care.

Growth in the number and intensity of rehabilitation days

Rehabilitation days continued to grow as a share of all Medicare SNF days, though the pace has slowed. In 2009, rehabilitation days accounted for 92 percent of Medicare SNF days, up from 83 percent in 2005 (Figure 7-4). The nine case-mix groups for days that qualify for both rehabilitation plus extensive services (for definitions, see Table 7-2, p. 150) accounted for 39 percent of days, up from 34 percent in 2007. The large number of rehabilitation plus extensive services days may reflect providers' coding improvements to record extensive services provided by the SNF or during the previous hospital stay to obtain higher payments associated with these case-mix groups.⁹ The growth also reflects specific strategies by some providers to maximize profits. Annual reports filed by publicly traded companies state that attracting Medicare patients and furnishing intensive therapy are business strategies they pursue (Extendicare 2008, Extendicare 2009, Extendicare Real Estate Investment Trust 2009, Kindred Healthcare 2010, Skilled Healthcare Group 2010, Sun Healthcare Group 2009, Sun Healthcare Group 2010, Wells Fargo Securities 2010).

Within the rehabilitation case-mix groups, the distribution of days continued to shift toward the highest intensity, and therefore highest payment, therapy groups. Between 2006 and 2009, the share of ultra high and very high rehabilitation days grew from 56 percent to 71 percent of all rehabilitation days. However, growth in the volume of ultra high and very high days has slowed. It is unlikely

that these increases reflect a change in patient care needs. At admission, there were small declines between 2006 and 2008 in patients' ability to conduct activities of daily living at admission (as measured by the Barthel score) and cognitive function (3 percent and 2 percent, respectively); during this period, total therapy days increased 16 percent.

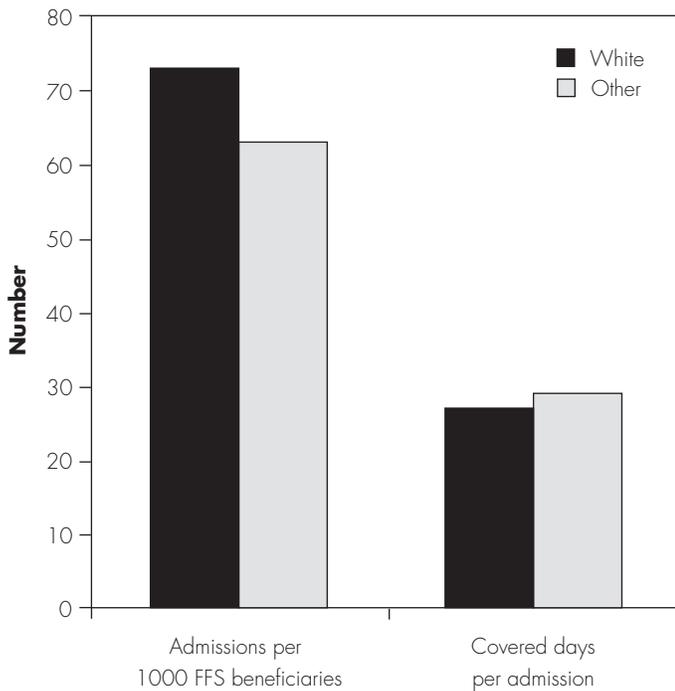
Some of the shift in rehabilitation days may be explained by a shift in site of service from inpatient rehabilitation facilities (IRFs) to SNFs as IRFs comply with a rule requiring that at least 60 percent of IRF patients must have 1 of 13 specified conditions. Under this rule, only a subset of patients recovering from major joint replacement, the largest category of IRF admissions in 2004, count toward the threshold. Between 2004 and 2009, the share of beneficiaries who had a major joint replacement and were discharged from a hospital to a SNF increased by 4 percentage points (from 33 percent to 37 percent), the share discharged to home health care increased by 10 percentage points (from 21 percent to 31 percent), while the share discharged to an IRF decreased by 15 percentage points (from 28 percent to 13 percent).

Quality of care: SNF quality virtually unchanged from prior year

The quality of care furnished to patients during a Medicare-covered SNF stay continued to show mixed results (Table 7-4, p. 156). Since 2000, one outcome measure (the risk-adjusted rate of discharge to the community) showed slight improvement and the other (the risk-adjusted rate of rehospitalization for any of five care-sensitive conditions) exhibited almost no change.¹⁰ Both measures showed almost no change between 2007 and 2008.¹¹

FIGURE 7-3

SNF admission rates and covered days per admission vary by race, 2009



Note: SNF (skilled nursing facility), FFS (fee-for-service). Data include 50 states and the District of Columbia.

Source: Calendar year data from CMS, Office of Research, Development, and Information.

In 2008, the most recent year for which data are available, the risk-adjusted rate at which SNFs discharged patients to the community within 100 days—36 percent—was essentially the same as in the prior year. Since 2000, the rate has increased 2.7 percentage points, indicating improved quality. Nonprofit facilities and hospital-based facilities had higher risk-adjusted community discharge rates than other SNFs, and urban facilities had slightly higher community discharge rates than rural facilities.

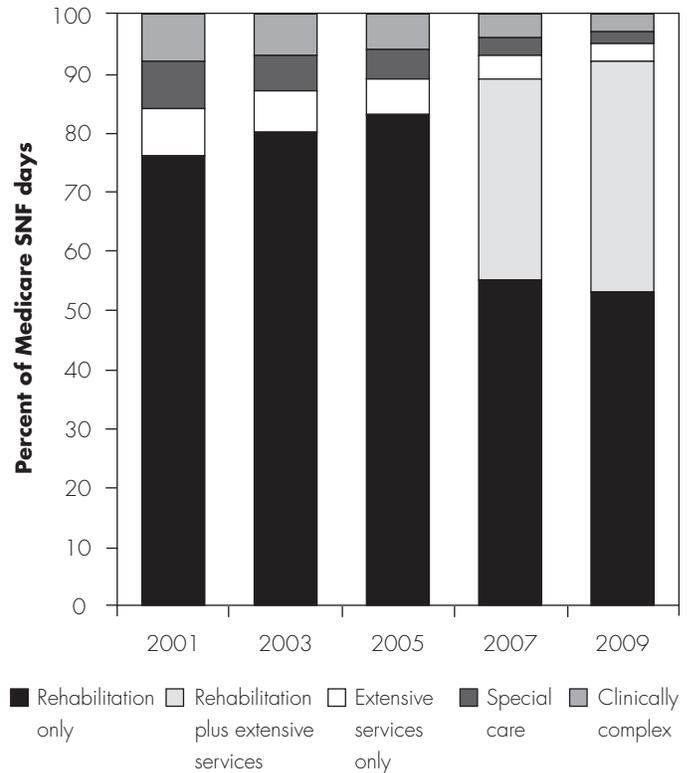
In 2008, the risk-adjusted rate at which Medicare-covered SNF patients were rehospitalized for potentially avoidable causes was 13.9 percent, almost the same as in 2007. The risk-adjusted rate of potentially avoidable rehospitalization within 100 days for five conditions (congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance) has increased only slightly since 2000, indicating almost no change in quality.

Across facilities, risk-adjusted quality measures varied considerably (Table 7-5, p. 157). Facilities with the highest

community discharge rates (90th percentile, or almost 1,200 facilities) discharged more than 52 percent of SNF patients to the community within 100 days; facilities with the lowest rates (lowest 10th percentile) discharged only 16 percent or less. Rehospitalization rates varied less but still more than twofold. Facilities with the lowest rates (the best) rehospitalized 8.5 percent of their SNF patients, while facilities with the highest rates rehospitalized more than 20 percent. In 2008, the Commission recommended

FIGURE 7-4

Case mix in freestanding SNFs continued to shift toward rehabilitation plus extensive services RUGs and away from other broad RUG categories



Note: SNF (skilled nursing facility), RUG (resource utilization group). The clinically complex category includes patients who are comatose; have burns, septicemia, pneumonia, internal bleeding, or dehydration; or receive dialysis or chemotherapy. The special care category includes patients with multiple sclerosis or cerebral palsy, those who receive respiratory services seven days per week, or are aphasic or tube fed. The extensive services category includes patients who have received intravenous medications or suctioning in the past 14 days, have required a ventilator/respiratory or tracheostomy care, or have received intravenous feeding within the past 7 days. The rehabilitation plus extensive service case-mix groups were implemented in 2006 and therefore are not seen in the mix of days between 2001 and 2005. Days are for freestanding SNFs with valid cost report data.

Source: MedPAC analysis of freestanding SNF cost reports.

**TABLE
7-4**

Risk-adjusted SNF quality measures show mixed results since 2000

Measure	2000	2002	2004	2006	2007	2008	Percentage point change 2000–2008
Percent discharged to community	33.3%	34.0%	34.4%	35.3%	35.9%	36.0%	2.7
Percent rehospitalized for any of 5 conditions	13.7	13.8	13.8	13.8	13.8	13.9	0.2

Note: SNF (skilled nursing facility). Increases in rates of discharge to community indicate improved quality. The five conditions include congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance. Increases in rehospitalization rates for the five conditions indicate worsening quality. Rates are calculated for all facilities with 25 or more stays.

Source: Rates calculated for MedPAC by the Division of Health Care Policy and Research University of Colorado at Denver and Health Sciences Center (Fish et al. 2011).

that SNF payments be tied to quality and noted that these measures could be part of a starter set of measures.

The Commission has discussed the need to synchronize the payment policies for hospitals and post-acute care providers. One way to make these policies parallel is to penalize SNFs that have high readmission rates, similar to the policy now in place for hospitals. If aligned, hospitals and SNFs would both have incentives to prevent premature discharge from hospitals, ensure good care transitions to SNFs, and furnish appropriate care in the SNF to prevent potentially avoidable rehospitalizations. Over the next year, we plan to examine policy options for lowering the number of rehospitalizations from SNFs.

We also examined observed rates of outcome measures by race. Despite differences in observed rates, once beneficiaries’ characteristics—such as ability to perform activities of daily living, cognitive function, and comorbidities—were accounted for, the outcome differences by racial group were not statistically significant.

Providers’ access to capital: Available but uncertainties persist

A vast majority of SNFs operate within nursing homes; therefore, in assessing SNFs’ access to capital we look at access for nursing homes. Capital is more available now than last year, although the uncertainties of states’ budgets give some lenders and borrowers pause. Hesitation in lending is not an indicator of the adequacy of Medicare payments: The program continues to be a highly valued payer. Because most operators make their bottom line using Medicare profits, lenders and owners use Medicare payer mix as one metric of a facility’s financial health.

The volume of mergers and acquisitions is one measure of the availability of capital. Although the number of publicly announced mergers and acquisitions of long-term care providers (nursing homes and assisted living facilities) declined (from 96 in 2008 to 90 in 2009), the dollar value more than doubled (Irving Levin Associates Inc. 2010). For homes that sold, the median price paid per nursing home bed increased 18 percent between 2008 and 2009 (Irving Levin Associates Inc. 2009, Irving Levin Associates Inc. 2010). This increase reflects the fact that well-run facilities, especially those with a high Medicare patient mix and located in markets close to hospitals, are a steady investment. Many providers do not make money on Medicaid even in “good” years but will wait out the current fiscal crisis facing many states. Despite uncertain reimbursement and the general health of the economy, the sector remains remarkably resilient (Irving Levin Associates Inc. 2010).

Lending by the Department of Housing and Urban Development (HUD) continues to be an important source of funds. Since 2008, HUD’s lending dramatically increased as a result of an overhaul of its federally insured mortgages program for nursing homes under Section 232/222.¹² Between 2009 and 2010, the number of HUD-financed projects increased 45 percent (to 369 projects) and HUD’s insured mortgage amounts increased to \$3.2 billion in 2010 (Department of Housing and Urban Development 2010). Most funded projects refinance existing loans. Less than 15 percent of the projects are new construction or major renovation. HUD reports 327 projects in its queue as of October 2010, making it the sector’s busiest lender.

**TABLE
7-5**

Considerable variation in risk-adjusted quality measures across SNFs, 2008

Measure	Percentile		
	10th	50th	90th
Percent discharged to community	16.0%	35.2%	52.3%
Percent rehospitalized for any of 5 conditions	8.5	14.1	20.4

Note: SNF (skilled nursing facility). Increases in rates of discharge to community indicate improved quality. The five conditions include congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance. Increases in rehospitalization rates for the five conditions indicate worsening quality. Rates are calculated for all facilities with 25 or more stays.

Source: Rates calculated for MedPAC by the Division of Health Care Policy and Research University of Colorado at Denver and Health Sciences Center (Fish et al. 2011).

With implementation of the new case-mix groups, some providers plan to renovate their facilities to accommodate medically complex patients who require ventilator or cardiac rehabilitation. Market analysts noted that delayed implementation of the new case-mix groups and changes to the counting of concurrent therapy minutes created some added risk to this sector (Wells Fargo Securities 2010). As providers focus on higher acuity patients, lenders have increased their attention on facilities' operations, focusing on the quality of care furnished, patient census, and cash on hand (Williamson 2010).

Medicare payments and providers' costs: Medicare margins continue to increase

Between 2008 and 2009, Medicare payments increased faster than Medicare costs, resulting in an aggregate 2009 Medicare margin of 18.1 percent. Medicare margins continued to vary more than twofold across ownership groups. Examining the range in financial performance, we found that high-margin SNFs had considerably lower costs and, to a smaller extent, higher payments than low-margin SNFs. We also found that some SNFs consistently furnished relatively low-cost, high-quality care and had substantial Medicare margins.

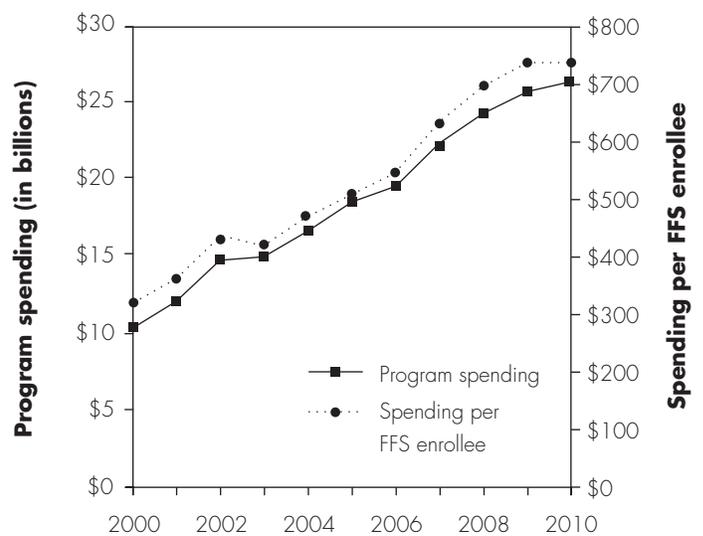
Program spending in 2010 topped \$26 billion

In fiscal year 2010, spending for SNF services was \$26.4 billion, up 2.3 percent from 2009 (Figure 7-5), the smallest increase since 2002. This lower growth rate reflects a slowdown in the growth in the volume of days classified into the highest payment case-mix groups. Spending on a per beneficiary basis declined slightly, reflecting an increase in the number of FFS beneficiaries between 2009 and 2010 that outpaced the growth in total spending.

SNF Medicare margins continue to grow

The Medicare margin is a key measure of the adequacy of the program's payments because it compares Medicare's payments with the costs to treat beneficiaries. A total margin, in contrast, reflects the financial performance of the entire facility across all lines of business (such as ancillary and therapy services, hospice, and home health care) and all payers. Total margins are presented as context for the Commission's update recommendation.

**FIGURE
7-5** Slower growth in program spending on skilled nursing facilities



Note: FFS (fee-for-service). Years are fiscal years. FFS counts include all beneficiaries enrolled in FFS Medicare.

Source: CMS, Office of the Actuary, 2010.

**TABLE
7-6****Freestanding SNF Medicare margins continue to increase**

	2003	2004	2005	2006	2007	2008*	2009*
Number of freestanding cost reports	10,941	11,252	11,301	11,379	11,625	12,549	12,827
Margin, by type of SNF							
All	10.9%	13.7%	13.0%	13.3%	14.7%	16.6%	18.1%
Urban	10.3	13.2	12.6	13.1	14.5	16.3	18.0
Rural	13.8	16.1	15.2	14.3	15.5	17.9	18.7
For profit	13.3	16.2	15.2	15.7	17.2	19.1	20.3
Nonprofit	1.6	3.6	4.6	3.5	4.2	7.1	9.5
Government**	N/A						

Note: SNF (skilled nursing facility), N/A (not available).

*CMS reports that an increased number of SNFs filed cost reports. This increase is attributed to the consolidation of audit operations at Medicare Contractors that resulted in a change in the number of cost reports being filed by "low utilization" facilities. As a result, more SNFs met the Commission's data screens to be included in the analysis.

**Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of freestanding SNF cost reports, 2003–2009.

SNF aggregate Medicare margins continued to increase, reflecting the continued concentration of days in the highest paying case-mix groups. In 2009, the aggregate Medicare margin for freestanding SNFs was 18.1 percent, the ninth consecutive year with a margin above 10 percent (Table 7-6).

Since 2006, Medicare payments per day have increased faster than costs per day, resulting in growing SNF margins. From 2008 to 2009, Medicare payments per day grew 6.1 percent, while Medicare costs per day grew 4.3 percent.

The financial performance of freestanding SNFs continued to vary widely. Consistent with previous years, in 2009, rural SNFs had slightly higher Medicare margins than

their urban counterparts. Facilities in the most rural areas (nonmetropolitan areas not adjacent to an urban area, with populations less than 2,500) had an aggregate Medicare margin of 19.2 percent. The disparity between for-profit and nonprofit facilities was large but has declined since 2007. The Medicare margin for for-profit SNFs was 20.3 percent, compared with 9.5 percent in nonprofit facilities. One-half of freestanding SNFs had Medicare margins of 18.7 percent or more, while one-quarter of them had Medicare margins at or below 8.8 percent, and one-quarter had Medicare margins of 26.7 percent or higher (Table 7-7).

Thirteen percent of freestanding SNFs had negative Medicare margins in 2009 and more than half of them also had negative Medicare margins in 2007 and 2008. Facilities with negative Medicare margins in 2009 on

**TABLE
7-7****Freestanding SNF Medicare margins vary considerably in 2009**

Measure	Percentile				
	10th	25th	50th	75th	90th
Medicare margin	-4.1%	8.8%	18.7%	26.7%	34.2%

Note: SNF (skilled nursing facility). Values shown in the table are the margin at the percentile cutoff.

Source: MedPAC analysis of freestanding SNF cost reports for 2009.

Should Medicare's skilled nursing facility payments subsidize payments from other payers?

Industry representatives contend that Medicare payments should subsidize payments from other payers, in large part Medicaid. However, the Commission believes such cross-subsidization is not advisable for several reasons. First, on average, Medicare payments account for less than a quarter of revenues to freestanding skilled nursing facilities. A cross-subsidization policy would use a minority share of Medicare payments to underwrite a majority share of states' Medicaid payments. Second, raising Medicare rates to supplement low Medicaid payments would result in poorly targeted subsidies. Facilities with high shares of Medicare payments—presumably the facilities that need revenues the least—would receive the most in subsidies from the higher Medicare

payments, while facilities with low Medicare shares—presumably the facilities with the greatest need—would receive the smallest subsidies. Third, increased Medicare payment rates could encourage states to further reduce their Medicaid payments and, in turn, create pressure to raise Medicare rates. In addition, a Medicare subsidy would have an uneven impact on payments, given the variation across states in the level and method of paying for nursing home care. In states where Medicaid payments were adequate, the subsidy would add to excessive payments. Last, higher Medicare payments could further encourage providers to select patients based on payer source or to rehospitalize dual-eligible patients to qualify them for a Medicare-covered, higher payment stay. ■

average were smaller and had shorter Medicare stays, which resulted in costs per day that were one-third higher than in other facilities. They also had much smaller shares of patients in ultra high and very high rehabilitation case-mix groups, which lowered their average payments per day relative to other SNFs. However, they had positive non-Medicare margins and only slightly negative total margins (–0.5 percent). Compared with the industry as a whole, SNFs with negative Medicare margins were more likely to be nonprofit. While nonprofit facilities made up 26 percent of freestanding facilities, they made up 37 percent of SNFs with negative Medicare margins. The mix of rural and urban facilities with negative Medicare margins was similar to that of the industry as a whole. Although every state had at least two facilities with negative Medicare margins, some states (Colorado, Maryland, Michigan, New Jersey, New York, Pennsylvania, and West Virginia) were overrepresented in the group of facilities with negative Medicare margins, while other states were underrepresented (Georgia, Illinois, Indiana, Iowa, Louisiana, Minnesota, Missouri, North Carolina, and Texas).

The aggregate total (all payer, all lines of business) margin for freestanding SNFs in 2009 was 3.5 percent, with one-quarter of facilities having total margins at or below –1.2 percent and one-quarter with total margins equal to or greater than 8.3 percent. Total margins are driven

in large part by low Medicaid payments. This industry's overall financial health is shaped by state policies regarding the level of Medicaid payments and the ease of entry into a market (e.g., whether there is a requirement for a certificate of need). There are many reasons why using Medicare payments to cross-subsidize Medicaid payments is ill-advised (see text box). An additional factor in a facility's total financial performance is the share of revenues from private payers (generally considered favorable) and other lines of business (such as ancillary, home health, and hospice services) that contribute to a facility's total financial performance.

On average, SNFs with the highest Medicare margins had relatively high total margins, while those with the lowest Medicare margins had low total margins (Table 7-8, p. 160). The Medicare margins for SNFs in the top quartile of Medicare margins averaged 32.6 percent and their total margin averaged 6.9 percent. Conversely, those in the bottom quartile of Medicare margins had Medicare margins of –0.7 percent and a total margin of 0.1 percent. Although the facilities' proportion of Medicare days did not vary much across quartiles (not shown), the Medicare shares of payments were quite different. Facilities in the bottom quartile of Medicare margins had 16 percent of their revenues from Medicare, while the Medicare share in facilities with the highest Medicare margins was 26

**TABLE
7-8****Characteristics of freestanding SNFs by Medicare margin quartile in 2009**

Measure	Quartile of Medicare margin			
	Bottom	2nd	3rd	Top
Medicare margin	-0.7%	14.5%	22.6%	32.6%
Total margin	0.1	2.7	4.5	6.9
Medicare share of facility revenues	16	23	25	26
Share of intensive rehabilitation days	54	63	67	69
Medicaid share of days	61	61	61	63
Medicare payments per day	\$395	\$412	\$420	\$427
Medicare costs per day	406	355	325	284

Note: SNF (skilled nursing facility). All values are medians for the quartile. Share of intensive rehabilitation days is the share of Medicare-covered days classified into ultra high and very high rehabilitation case-mix groups.

Source: MedPAC analysis of freestanding SNF cost reports for 2009.

percent. These differences were driven by the proportion of intensive rehabilitation days, which varied from 54 percent in the bottom quartile facilities to 69 percent in the top quartile facilities. Average Medicaid shares of facility days did not vary substantially across quartiles. SNFs in the top quartile of Medicare margins had higher payments and much lower daily costs. While average daily payments for SNFs in the top quartile of margins were considerably higher (8 percent) than SNFs in the bottom quartile, the cost differences were even larger. SNFs in the top quartile of Medicare margins had daily costs that were 30 percent less than those of SNFs in the bottom quartile.

Hospital-based facilities (6 percent of facilities) continued to have very negative margins (-66 percent), in large part reflecting their higher daily costs and shorter stays (averaging less than half the length of stay in freestanding facilities). Their higher costs are a function of higher staffing levels and a staff mix more heavily weighted toward professional staff. They also have higher ancillary costs, which may indicate that physicians view SNF stays as an extension of the inpatient stay and may not fully adjust their practice to the fact that the patient has moved into a lower intensity, post-acute setting. Our recommended changes to the SNF PPS would increase payments to hospital-based facilities by an estimated 20 percent, given the mix of patients they treat.

The Commission has examined hospital-based SNFs and their impact on the hospital's financial performance. Administrators consider the SNF units in the context of the hospital's overall business model and the SNF's impact on the inpatient margin, inpatient length of stay, and freeing up inpatient capacity to treat additional acute care patients. Our analysis of 2009 hospital cost reports found that SNF services contributed to the bottom line financial performance of the hospitals. Hospitals with SNFs had lower inpatient costs per case and higher inpatient Medicare margins than hospitals without SNFs.

Comparing SNFs with high and low margins

To help evaluate the range in SNF margins, we compared the characteristics of freestanding facilities with high and low Medicare margins (Table 7-9). We found that lower daily costs and higher payments contributed to the differences in financial performance between SNFs with the lowest and highest Medicare margins (those in the bottom and top 25th percentiles of Medicare margins). Compared with high-margin SNFs, low-margin SNFs had case-mix-adjusted costs per day that were 41 percent higher (\$324 versus \$229), ancillary costs per day that were 35 percent higher, and routine costs that were 40 percent higher. The higher daily costs of the low-margin SNFs are explained partly by their lower average daily census (with fewer economies of scale) and shorter stays

**TABLE
7-9**

Freestanding SNFs in top quartile of Medicare margins in 2009 had much lower costs

Characteristic	Top quartile margin	Bottom quartile margin	Ratio of bottom to top quartile
Costs per day			
Total	\$229	\$324	1.4
Ancillary	\$100	\$134	1.3
Routine	\$131	\$184	1.4
Administration and general cost (overhead)	\$29	\$38	1.3
Average daily census (patients)	87	70	0.8
Length of stay (days)	44	38	0.9
Medicare payment per day	\$427	\$395	0.9
Share of days in ultra high and very high rehabilitation case-mix groups	69%	54%	0.8
Medicare share of total facility revenues	26%	16%	0.6
Share of SNFs, by type			
Percent for profit	89%	59%	
Percent urban	71%	73%	

Note: SNF (skilled nursing facility). Values shown are medians for the quartile. Top margin quartile SNFs (n=3,205) were in the top 25 percent of the distribution of Medicare margins. Bottom margin quartile SNFs (n=3,205) were in the bottom 25 percent of the distribution of Medicare margins. Costs per day have been adjusted for differences in area wages and case mix (using the nursing component's relative weights).

Source: MedPAC analysis of freestanding SNF cost reports, 2009.

(over which to spread their fixed costs) compared with high-margin SNFs. Unmeasured differences in patient mix could also explain some of the cost differences.

On the revenue side, low-margin SNFs had average Medicare payments per day that were 7 percent below those for high-margin SNFs. Low-margin SNFs had smaller shares of days in the ultra high and very high rehabilitation case-mix groups (54 percent compared with 69 percent) that reflect the current distortions in the PPS. Our previous work found that as therapy costs increase, payments rise even faster (Medicare Payment Advisory Commission 2008). Low-margin SNFs had smaller shares of their total revenues made up by Medicare.

Ownership of low-margin and high-margin facilities did not mirror their industry mix. Although for-profit facilities make up two-thirds of SNFs, they comprised a smaller share (59 percent) of the low-margin facilities. Conversely, they were overrepresented in the high-margin group.

High margins achieved by relatively efficient SNFs

The Commission is required by the Medicare Prescription Drug, Improvement, and Modernization Act of 2003 to consider the costs associated with efficient providers. We examined the financial performance of freestanding SNFs with consistent cost and quality performance (for definitions, see text box, p. 162). To measure costs, we looked at costs per day that were adjusted for differences in area wages and case mix. To assess quality, we examined risk-adjusted rates of community discharge and potentially avoidable rehospitalizations.

Our analyses found that SNFs can have relatively low costs and provide a good quality of care, while maintaining high margins (Table 7-10, p. 163). Compared with the average, relatively efficient SNFs had community discharge rates that were 29 percent higher, rehospitalization rates that were 16 percent lower, and costs per day that were 10 percent lower. In contrast, other SNFs had below-average community discharge rates,

Identifying relatively efficient skilled nursing facilities

We defined relatively efficient skilled nursing facilities (SNFs) as those with relatively low costs per day and reasonably good quality care between 2005 and 2007.¹³ The cost per day was adjusted for differences in case mix (using the nursing component relative weights) and wages. Quality measures were risk-adjusted rates of community discharge and rehospitalization for five conditions (congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance) within 100 days of hospital discharge. Quality measures were

calculated for all facilities with at least 25 stays. To be included in the group of relatively efficient SNFs, a SNF had to be in:

- the best third of the distribution of one measure, and
- not in the bottom third on any measure for three consecutive years (2005 through 2007).

According to this definition, 9 percent of SNFs provided relatively efficient care. ■

above-average rehospitalization rates, and slightly higher costs per day. Compared with other SNFs, relatively efficient SNFs were more likely to be rural and nonprofit.

Although relatively efficient SNFs had shorter stays than other SNFs, we did not find differences between relatively efficient and other SNFs in their facility occupancy rates or bed turnover rates (nursing home and SNF days per bed). Yet, compared with other SNFs, relatively efficient SNFs had higher Medicare and total margins. Looking at growth trends since 2001, relatively efficient facilities were slightly more likely to have experienced low cost growth (in the bottom third of the distribution of growth in cost per day) and high revenue growth (in the top third of the distribution of growth in revenue per day) than other facilities.

We recognize that a SNF may appear to be efficient in providing care but may not be when considering a patient's entire episode of care. For example, SNFs that discharge patients to other post-acute services may be efficient in their own practice but raise total program spending. In the future, we plan to examine the total costs of the episode of care to assess the SNFs' practice patterns in a broader context.

Payments and costs for 2011

In assessing payment adequacy for 2012, the Commission considers the estimated relationship between Medicare payments and SNF costs in fiscal year 2011. To estimate 2011 payments, the Commission considers policy changes that went into effect in 2010 and 2011 and the legislated SNF market basket increases.

- For fiscal year 2010, CMS lowered payments to account for overpayments that had resulted from implementation of new case-mix groups in 2006. As background, whenever changes to a classification system are introduced, CMS uses the best available data to make an across-the-board adjustment so that payments under the "new" case-mix groups are the same as payments would have been under the "old" case-mix groups. CMS's analysis of 2006 case-mix data found that it substantially underestimated the impact of the new groups and that the new groups resulted in 3.3 percent overpayments, or about \$1 billion (Centers for Medicare & Medicaid Services 2009). To ensure parity between the old and new case-mix groups, CMS lowered payments to account for the overpayment. The reduction is partly offset by the market basket increase for 2010, so that payments on net were reduced by 1.1 percent, or \$360 million. We factored this reduction in payments into our estimate of 2010 payments.
- In 2011, there were no other policy changes to consider besides the projected market basket increase and a forecast error correction, which CMS makes to SNF payments when forecast errors are larger than 0.5 percent in either direction. In this case, the error was -0.6 percent, so CMS lowered the update by 0.6 percent.
- The SNF market basket, which measures price inflation for the goods and services SNFs use to produce a day of care, increased Medicare payments by 2.2 percent in 2010 and by 2.3 percent in 2011.

Our modeling of future year costs also considers recent observed cost growth for freestanding SNFs. Between 2008 and 2009, costs per day (unadjusted for case mix) grew 4.3 percent.

In 2011, we project the aggregate Medicare SNF margin to be 10.9 percent. This estimate may be conservative for two reasons.

- First, it assumes that costs will increase at the actual average cost growth over the past five years (4.6 percent) and not at the market basket rate, which is lower. If costs grow more slowly than the recent average rate because of the condition of the economy, costs will be overstated and the margin estimate will be understated.
- Second, we have not assumed any changes in the distribution of days across the case-mix groups. However, if the three-year average shift in the distribution of days to higher payment case-mix groups continues for 2010 and 2011, the projected margin for 2011 will be considerably higher. Under one reasonable set of assumptions regarding a shift in the mix of days, the estimated Medicare margin for 2011 will be almost 3 percentage points higher. In this scenario, we assume a shift in the mix of days for 2010 but not for 2011. In 2010, the PPS and its incentives were unchanged and the mix of cases is likely to shift consistent with historical trends (the mix of cases alone raises payments by more than 3 percent a year). In 2011, CMS made many revisions to the case-mix system, and it is difficult to estimate how they will affect the distribution of days. Therefore, we did not assume any change for 2011. Assuming a shift in days for 2010 but not for 2011 will raise the estimated Medicare margin to 13.6 percent instead of 10.9 percent. If providers in 2011 continue to focus on classifying days into the highest payment groups, the shift in distribution of days could increase payments, which would raise the projected 2011 margin above 13.6 percent.

How should Medicare payments change in 2012?

The update in current law for fiscal year 2012 is the forecasted change in input prices as measured by the SNF market basket offset by a productivity adjustment. The market basket for SNFs in 2012 is projected to be 2.6

**TABLE
7-10**

Relatively efficient SNFs maintained high Medicare margins

Measure	Relatively efficient SNFs	Other SNFs
Percent of SNFs	9%	91%
Performance in 2008		
Relative to the national average:		
Community discharge rate	1.29	0.97
Rehospitalization rate	0.84	1.02
Cost per day	0.90	1.01
Median:		
Medicare length of stay (in days)	35	41
Medicare margin	21.8%	17.4%
Performance in 2009		
Cost per day relative to the national average		
	0.91	1.01
Median:		
Medicare length of stay (in days)	34	39
Medicare margin	22.0%	18.3%
Total margin	5.3%	3.9%
Medicaid share of facility days	58%	62%
Trends in performance, 2001–2009		
Percent with low cost growth	11%	89%
Percent with high revenue growth	11	89

Note: Skilled nursing facility (SNF). Efficient SNFs were defined by their cost per day and two quality measures (community discharge and rehospitalization rates) for 2005 through 2007. Efficient SNFs were those in the lowest third of the distribution of one measure and not in the bottom third on any measure. Costs per day were standardized for differences in case mix (using the nursing component relative weights) and wages. Quality measures were rates of risk-adjusted community discharge and rehospitalization for five conditions (congestive heart failure, respiratory infection, urinary tract infection, sepsis, and electrolyte imbalance) within 100 days of hospital discharge. Increases in rates of discharge to the community indicate improving quality; increases in rehospitalization rates for the five conditions indicate worsening quality. Quality measures were calculated for all facilities with at least 25 stays. Low cost growth included facilities in the lowest third of the distribution of cost growth between 2001 and 2009. High revenue growth included facilities in the highest third of the distribution of growth in revenues between 2001 and 2009. The number of facilities included in the analysis was 8,916.

Source: MedPAC analysis of quality measures for 2005–2008 and Medicare cost report data for 2001–2009.

percent and the productivity adjustment is estimated to be 1.3 percent, but CMS will update both before establishing payments for 2012. SNFs should be able to accommodate cost changes in fiscal year 2012 with payments held at 2011 levels.

Update recommendation

RECOMMENDATION 7

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2012.

RATIONALE 7

The evidence indicates that Medicare beneficiaries continue to have access to SNF services, capital is available, and Medicare payments far exceed Medicare costs. Under policies in law for 2010 and 2011, we project the Medicare margin for freestanding SNFs to be 10.9 percent in 2011. SNF payments appear more than adequate to accommodate cost growth with payments held at 2011 levels.

IMPLICATIONS 7

Spending

- This recommendation would lower program spending relative to current law by between \$250 million and \$750 million for fiscal year 2012 and by between \$1 billion and \$5 billion over five years. Savings occur because current law requires a market basket increase (estimated to be 2.6 percent) and, as required by the Patient Protection and Affordable Care Act of 2010, a productivity adjustment (which would lower payments by an estimated 1.3 percent).

Beneficiary and provider

- We do not expect an adverse impact on beneficiary access, nor do we expect the recommendation to affect providers' willingness or ability to care for Medicare beneficiaries.

Since 1995 (the year used to establish prospective payments), the mix of patients treated in SNFs and the services furnished have changed substantially. For example, the use of concurrent and group therapy was minimal when the PPS was implemented but these modalities (which lower the cost of rehabilitation therapy) made up about one-third of therapy services in 2009 (Centers for Medicare & Medicaid Services 2009). Over the coming year, we plan to examine the issue of rebasing SNF payments to reflect current costs and practice patterns.

Previous Commission recommendations would improve the accuracy of payments

The Commission considers the update recommendation to be part of the package of SNF recommendations that together consider the level and distribution of payments (see text box on previous recommendations). The payment update can help control overall spending, while other recommendations can improve the accuracy of payments and their distribution across facilities. Of particular relevance to the update discussion are two recommendations that have not been acted upon by the Congress or by CMS:

- Revise the PPS by adding a separate NTA service component, replacing the therapy component with one that establishes payments based on predicted care needs (not service provision), and adding an outlier policy.
- Establish a pay-for-performance program.

Basing payments on the care needs of patients and the outcomes they are able to achieve would narrow the disparities in financial performance across facilities. Although CMS has made progress in improving the SNF PPS, more work remains. The Commission urges the Congress to implement all three recommendations so that spending increases are limited and payments are distributed equitably across all types of cases and the facilities that treat them.

Medicaid trends

Section 2801 of the Patient Protection and Affordable Care Act of 2010 requires the Commission to examine spending, utilization, and financial performance under the Medicaid program for sectors with a significant portion of revenues or services associated with the Medicaid program. This year we report on spending and utilization trends for Medicaid and the financial performance for non-Medicare payers. Medicaid revenues and costs are not reported in the Medicare cost reports.

Medicaid covers nursing home (long-term care) and skilled nursing care furnished in nursing facilities. Medicaid pays for long-term care services that Medicare does not cover. For beneficiaries who are dually eligible for Medicaid and Medicare, Medicaid pays for the

Previous Commission skilled nursing facility recommendations

The Commission made several recommendations aimed at improving the accuracy of Medicare's payments, linking the program's payments to beneficiary outcomes, and increasing the ability to assess the value of Medicare's purchases (Medicare Payment Advisory Commission 2008a, Medicare Payment Advisory Commission 2008b). Recommendations that have not been acted upon include:

The Congress should require the Secretary to revise the skilled nursing facility (SNF) prospective payment system (PPS) by:

- adding a separate nontherapy ancillary (NTA) component,
- replacing the therapy component with one that establishes payments based on predicted patient care needs, and
- adopting an outlier policy.

Compared with the existing PPS, the revised design would better target payments to stays with high NTA costs, more accurately calibrate therapy payments to therapy costs, and offer some financial protection to SNFs that treat stays with exceptionally high ancillary costs.

The Congress should establish a quality incentive payment policy for SNFs in Medicare.

Linking payments to beneficiary outcomes could help improve SNF quality and redistribute payments from low-quality to high-quality providers. Measures such as rehospitalization rates would encourage providers to improve their coordination of care across sites. The Patient Protection and Affordable Care Act of 2010 requires the Secretary to develop an implementation plan for value-based purchasing for SNFs by October 1, 2011.

To improve quality measurement for SNFs, the Secretary should add the risk-adjusted rates of potentially avoidable rehospitalizations and community discharge to its publicly reported post-acute care quality measures.

The Secretary should direct SNFs to report more accurate diagnostic and service-use information by requiring that claims include detailed diagnosis information and dates of service.

Better information would improve payment accuracy and enable policymakers to assess the value of SNF care. ■

Medicare copayments required of beneficiaries beginning on day 21 of a stay in a SNF.

Utilization

There were more than 1.6 million users of Medicaid-financed nursing home services in 2007, more than a 3 percent decline from 2001 (Centers for Medicare & Medicaid Services 2010). Fewer users reflect many states' efforts to divert nursing admissions to community-based services.

The number of nursing facilities certified as Medicaid providers declined 5 percent between 2001 and 2009

(Table 7-11, p. 166). A vast majority of nursing home facilities are certified as Medicare and Medicaid providers.

During this same period, Medicaid-covered days (both nursing home level and SNF level) increased 12.9 percent (Table 7-12, p. 166). More recently, between 2008 and 2009, Medicaid-covered days increased slightly (0.6 percent). Medicaid-covered days make up an average 65 percent of nursing facility days.

Spending

In 2009, Medicaid spent more than \$50 billion on nursing homes (Table 7-13, p. 167). Spending averaged a 2 percent increase annually between 2001 and 2009, though

**TABLE
7-11****Small decline in Medicaid-certified nursing home facilities 2001–2009**

	2001	2003	2005	2007	2009	Percent change, 2001–2009
Number of facilities	15,590	15,388	15,121	14,990	14,915	–5.4%

Source: Certification and Survey Provider Enhanced Reporting on CMS's Survey and Certification Providing Data Quickly system, 2001–2009.

spending changes were quite variable, increasing in some years and decreasing in others. Between 2008 and 2009, spending increased 2.5 percent, and it is projected to increase slightly for 2010 (to \$50.5 billion).

On a per user basis, Medicaid spending per nursing home resident averaged \$28,511 in 2007.

Medicaid per day payment levels vary twofold across states. In 2004, 11 states' payments were 20 percent (or more) below the national average (\$132 per day), while 8 states paid 20 percent or more above it (Grabowski et al. 2008). The levels of Medicaid's and Medicare's payments are sometimes compared. Although Medicare's payments are much higher than Medicaid's, the acuity of the average Medicare beneficiary is higher, as reflected in the average nursing and therapy case-mix indexes for Medicaid and Medicare patients. In 2008, the Medicare nursing case-mix index was 36 percent higher and the therapy index was almost 13 times that for Medicaid patients (Plotzke and White 2009). At Medicare's payment rates, the average-acuity Medicaid patient would have been paid \$212, compared with \$380 for the average-acuity Medicare patient.

States grappling with budget deficits have pursued three policies to control their spending on nursing homes. First, states have shifted their long-term care spending

away from institutional care and toward home health care and community-based services. Between 2000 and 2007, Medicaid spending on home health, personal, and community-based services more than doubled, while nursing home spending increased 19 percent. Second, fewer states are raising provider payments. The number of states that raised payments to nursing homes has steadily declined since 2008, while the number of states reducing or freezing payments for fiscal year 2010 outnumber those that increased them (Kaiser Commission on Medicaid and the Uninsured 2009). Third, more states (for a total of 37 states in 2010) adopted provider taxes for nursing homes as a way to raise the states' share of matching funds, and 7 states increased the size of the tax (Kaiser Commission on Medicaid and the Uninsured 2009). In early years, states used the funds to raise payments; now, states often use the funds to minimize rate reductions or freezes or to lower budget deficits (Eljay 2010). However, the opportunity to use this mechanism to raise payment levels is shrinking. Most states with provider taxes are taxing providers at or near the maximum allowed (5.5 percent), leaving states fewer opportunities for raising funds (Eljay 2010).

Non-Medicare margins

The Medicare cost reports do not include the information required to estimate the costs or payments associated with Medicaid patients or a margin for the nursing facility. They

**TABLE
7-12****Medicaid-covered nursing facility days increased, 2001–2009**

	2001	2003	2005	2007	2009	Percent change, 2001–2009
Number of days	214,355	216,803	222,243	225,663	242,057	12.9%

Note: Nursing facility days include skilled and nursing facility levels of care.

Source: Medicare skilled nursing facility cost reports.

**TABLE
7-13****Total and per user Medicaid spending**

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2001-2009
Total spending										
In billions	\$42.7	\$46.4	\$44.8	\$45.3	\$47.2	\$47.5	\$46.9	\$48.9	\$50.1	
Percent change	N/A	8.7%	-3.4%	1.1%	4.2%	0.6%	-1.3%	4.3%	2.5%	17%
Spending per nursing home resident	\$25,103	\$26,364	\$26,493	\$26,507	\$27,716	\$27,827	\$28,511	N/A	N/A	

Note: N/A (not available).

Source: Centers for Medicare & Medicaid Services 2010 and CMS, Office of the Actuary.

do, however, allow us to estimate margins for treating non-Medicare patients and all patients across all lines of business (including hospice and rehabilitation therapy). In 2009, the aggregate non-Medicare margin was -1.2 percent (Table 7-14). Since 2001, aggregate non-Medicare margins have been below 0, ranging from -2.6 percent in 2001 to -0.8 percent in 2005. However, total margins have remained positive throughout this period, ranging from 0.8 percent in 2003 to 3.5 percent in 2009.

State-by-state analysis did not reveal a consistent pattern in the change in non-Medicare margins in 2007, 2008, and 2009. Comparing 2007 and 2008 non-Medicare margins, although 32 states (including the District of Columbia) had lower aggregate margins in 2008 than in 2007, there were 19 states with improved non-Medicare financial performance, including 11 that went from negative to positive margins. Of the nine states with large declines (more than 3 percentage points) between 2007 and 2008,

three experienced large increases (more than 3 percentage points) in performance between 2008 and 2009.

In 2009, non-Medicare margins were slightly more variable than total margins and centered around a much lower median (-1.6 percent compared with the median total margin of 3.5 percent). About one-quarter of facilities had non-Medicare margins equal to or less than -8.3 percent, while one-quarter had non-Medicare margins that equaled or exceeded 4.2 percent (Table 7-15, p. 168). One-quarter of facilities had total margins at or below -1.2 percent, while one-quarter of facilities had margins at or above 8.3 percent.

Should Medicare's skilled nursing facility payments subsidize payments from other payers?

Industry representatives have consistently stated that Medicare payments are needed to cross-subsidize payments from Medicaid. However, the Commission

**TABLE
7-14****Non-Medicare margins were negative but total margins were positive**

Type of margin	2001	2003	2005	2007	2009
Non-Medicare margin	-2.6%	-1.7%	-0.8%	-1.2%	-1.2%
Total margin	1.0	0.8	2.2	2.5	3.5

Note: Non-Medicare and total margins include revenues and costs associated with non-Medicare payers and all lines of business (including nursing facility, hospice, and rehabilitation therapy services).

Source: MedPAC analysis of freestanding 2001-2009 skilled nursing facility cost reports

**TABLE
7-15****Freestanding SNF margins vary considerably in 2009**

Type of margin	Percentile				
	10th	25th	50th	75th	90th
Non-Medicare	-17.0%	-8.3%	-1.6%	4.2%	10.2%
Total	-7.9	-1.2	3.5	8.3	13.3

Note: SNF (skilled nursing facility). Non-Medicare and total margins include revenues and costs associated with non-Medicare payers and all lines of business (including nursing facility, hospice, and rehabilitation therapy services).

Source: MedPAC analysis of freestanding 2009 skilled nursing facility cost reports

believes such cross-subsidization is not advisable for several reasons. First, on average, Medicare payments account for less than a quarter of revenues to freestanding SNFs. A cross-subsidization policy would use a minority share of Medicare payments to underwrite a majority share of states' Medicaid payments. Second, raising Medicare rates to supplement low Medicaid payments would result in poorly targeted subsidies. Facilities with high shares of Medicare payments—presumably the facilities that need revenues the least—would receive the most in subsidies from the higher Medicare payments, while facilities with low Medicare shares—presumably the facilities with the greatest need—would receive the smallest subsidies.

Third, increased Medicare payment rates could encourage states to further reduce their Medicaid payments and, in turn, create pressure to raise Medicare rates. In addition, a Medicare subsidy would have an uneven impact on payments, given the variation across states in the level and method of paying for nursing home care. In states where Medicaid payments were adequate, the subsidy would add to excessive payments. Last, higher Medicare payments could further encourage providers to select patients based on payer source or to rehospitalize dual-eligible patients to qualify them for a Medicare-covered, higher payment stay. ■

Endnotes

- 1 For services to be covered, the SNF must meet Medicare's conditions of participation (COPs) and agree to accept Medicare's payment rates. Medicare's COPs relate to many aspects of staffing and care delivery, such as requiring a registered nurse in the facility for 8 consecutive hours per day and licensed nurse coverage 24 hours a day, providing physical and occupational therapy services as delineated in each patient's plan of care, and providing or arranging for physician services 24 hours a day in case of an emergency.
- 2 The program pays separately for some services, including certain chemotherapy drugs, customized orthotics and prosthetics, ambulance services, dialysis, outpatient and emergency services furnished in a hospital, computed tomography, MRI, radiation therapy, and cardiac catheterizations. A more complete description of the SNF PPS is available at http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_SNF.pdf.
- 3 The original model did not meet two of the criteria CMS laid out in the 2009 SNF PPS final rule (Centers for Medicare & Medicaid Services 2009). One criterion indicated that the payment method should use data from the patient assessment or claims; the original model included diagnostic information from the hospital stay. A second criterion was that the design should result in a minimal number of payment groups to limit complexity of the PPS. The original model used 70 variables and did not result in discrete case-mix groups for these services. Rather, payments varied for every patient based on his or her characteristics.
- 4 In 2010, CMS raised nursing component payments by an estimated 21 percent and lowered therapy component payments by 41 percent. As a result of this shift, the nursing component for patients in the highest extensive services case-mix groups will increase by more than 90 percent and payments for patients in the highest special care case-mix group (such as patients with chronic obstructive pulmonary disease) will increase almost by 80 percent.
- 5 A facility may begin to participate in the program but may not be "new." For example, a facility could have a change in ownership (and be assigned a new provider number) or in its certification status from Medicaid-only to dually certified for the Medicaid and Medicare programs. We use the number of SNFs that terminated their participation in the Medicare program as a proxy for the facilities that closed.
- 6 In 2008, SNFs with the highest shares of clinically complex admissions (the top quartile) treated 55 percent of all these patients compared with SNFs with the highest rehabilitation shares (which treated 33 percent of all rehabilitation admissions).
- 7 The share of medically complex admissions was 31 percent at the 99th percentile of the distribution of medically complex shares of Medicare admissions.
- 8 In 2008, African American beneficiaries made up 10 percent of all SNF admissions but 16 percent of special care admissions and 17 percent of clinically complex admissions.
- 9 In its analysis of staff resources associated with caring for different types of patients, CMS found that services furnished during the prior hospital stay were not an accurate proxy for medical complexity (Centers for Medicare & Medicaid Services 2009). As a result, beginning with implementation of the new case-mix groups, services furnished during the prior hospital stay are no longer considered in classifying patients in case-mix groups. Furthermore, the definition of extensive services no longer includes furnishing intravenous (IV) medications. CMS found that the staff time associated with IV medications was consistent with clinically complex patients, not with patients in the extensive services category.
- 10 The community discharge and potentially avoidable rehospitalization rates have been risk-adjusted using many resident-level factors. Both models include a derived comorbidity index, the Barthel index (a measure of functional independence), a cognitive performance scale (a measure of cognitive impairment), and the presence of do-not-resuscitate orders. The community discharge model also includes the rehabilitation case-mix hierarchy (ranging from ultra high to low), selected clinical conditions associated with community discharge (depression, schizophrenia), and whether the patient was married. The rehospitalization model also includes select patient needs and characteristics associated with hospitalization (indwelling catheter, feeding tube, and pressure ulcers) and select clinical conditions (congestive heart failure, respiratory disease, and electrolyte imbalance). This risk-adjustment methodology was updated in 2009 to better reflect the relative importance of comorbid conditions, among other improvements (Kramer et al. 2009). Observed rates for both measures were adjusted by using each facility's predicted-to-observed odds ratio applied to a constant national rate for the year 2000. These measures gauge how well each facility performed at discharging patients back to the community or avoiding rehospitalizations, compared with other facilities, and track nationwide trends in outcome performance. Data for this risk-adjustment methodology come from Medicare SNF and hospital claims; the Minimum Data Set; and the Online Survey, Certification, and Reporting system.

- 11 The risk-adjusted rates were calculated differently this year to more accurately reflect the changes in case-mix over time. In prior analyses, we adjusted each year's measures for the mix of cases treated by SNFs in that year but did not account for the changes in the mix of cases over time. We have adopted a methodology that adjusts for the mix of cases each year as well as the change in the mix of cases over time. This refinement provides a more accurate comparison of outcome measure performance over time.
- 12 The HUD Section 232 program finances new or substantial reconstruction of nursing homes. The Section 232/222(f) program finances the refinancing or purchase of existing facilities.
- 13 The method we used to assess performance attempts to limit drawing incorrect conclusions about performance based on poor data. Using three years to categorize SNFs as efficient (rather than just one year) avoids categorizing providers based on random variation or one "bad" year. In addition, we separated a SNF's assignment to a group from the examination of the group's performance to avoid having poor data for a facility affect both its own categorization and the assessment of the group's performance. Performance over three years (2005 through 2007) was used to categorize SNFs into relatively efficient and other groups; once the groups were defined, we evaluated their performances in 2008 and 2009. Thus, a SNF's erroneous data could result in the inaccurate assignment of the SNF to a group, but because the group's performance is assessed with data from later years, these "bad" data would not affect the assessment of the group's performance.

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CHAPTER

8

Home health services

R E C O M M E N D A T I O N S

8-1 The Secretary, with the Office of Inspector General, should conduct medical review activities in counties that have aberrant home health utilization. The Secretary should implement the new authorities to suspend payment and the enrollment of new providers if they indicate significant fraud.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....
8-2 The Congress should direct the Secretary to begin a two-year rebasing of home health rates in 2013 and eliminate the market basket update for 2012.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....
8-3 The Secretary should revise the home health case-mix system to rely on patient characteristics to set payment for therapy and nontherapy services and should no longer use the number of therapy visits as a payment factor.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

.....
8-4 The Congress should direct the Secretary to establish a per episode copay for home health episodes that are not preceded by hospitalization or post-acute care use.

COMMISSIONER VOTES: YES 13 • NO 1 • NOT VOTING 2 • ABSENT 1

.....
(For additional recommendations on improving the home health payment system, see text box on p. 197.)

Home health services

Chapter summary

Home health agencies provide services to beneficiaries who are homebound and need skilled care (nursing or therapy). In 2009, about 3.3 million Medicare beneficiaries received home health services from more than 11,400 home health agencies. Medicare spent \$19 billion on home health services in 2009.

Assessment of payment adequacy

The indicators of payment adequacy for home health care are generally positive. The Commission recommends that the Congress eliminate the market basket update for 2012 and direct the Secretary to implement a two-year rebasing of home health rates beginning in 2013. The Commission believes the home health benefit has significant vulnerabilities that need to be addressed urgently, and this chapter recommends policies to improve payment accuracy, establish beneficiary incentives, and strengthen program integrity.

Beneficiaries' access to care—Access to home health care is generally adequate. Ninety-nine percent of beneficiaries live in a ZIP code where a Medicare home health agency operates and 98 percent live in a ZIP code with two or more agencies.

- **Capacity and supply of providers**—The number of agencies continues to increase, with more than 650 new agencies in 2010. The total number exceeds 11,400, surpassing the peak of 10,917 agencies in 1997. Most new agencies are concentrated in a few states.

In this chapter

- Are Medicare payments adequate in 2011?
.....
- How should Medicare payments change in 2012?
.....

- **Volume of services**—The volume of services continues to rise. The average number of episodes per user has increased by 25 percent since 2002. The share of beneficiaries using home health services has increased significantly since 2002.

Quality of care—The Home Health Compare measures for 2010 are similar to those for previous years, showing improvement in the functional measures and mostly unchanged rates of adverse events. However, the Commission believes that supplemental measures of quality that focus on specific conditions are needed to assess home health quality and has a project under way to develop new measures.

Providers' access to capital—According to capital market analysts, the major publicly traded for-profit home health companies have sufficient access to capital markets for their credit needs. For smaller agencies, the significant number of new agencies in 2010 suggests that they have access to capital necessary for start-up.

Medicare payments and providers' costs—In prior years, payments have consistently and substantially exceeded costs in the home health prospective payment system (PPS). Medicare margins for freestanding providers in 2009 were 17.7 percent, which is about equal to the average for the period since the home health PPS was implemented. Two factors have contributed to payments exceeding costs: Fewer services are delivered than is assumed in Medicare's rates, and growth in cost per episode has been lower than what is assumed in the market basket.

Strengthening integrity and incentives for home health

Recent trends in several parts of the nation suggest that fraud has become a significant concern in the home health benefit. The Commission recommends that the Secretary and the Office of Inspector General review areas with aberrant home health utilization and that the Secretary suspend enrollment and payment in areas with widespread fraud.

The Commission believes the current home health payment system is flawed and creates incentives for patient selection. Analysis by the Commission and the Urban Institute suggests that the current case-mix system may, in effect, overvalue therapy services and undervalue nontherapy services. The Commission recommends that the Secretary implement a revised payment system that addresses these flaws.

The lack of cost sharing in Medicare for home health services is unusual, as most services in Medicare's traditional fee-for-service program include some form of beneficiary liability. Adding a cost-sharing requirement would engage beneficiaries in assessing the value of home health services. ■

**TABLE
8-1**

Changes in supply and utilization of home health care

	1997	2000*	2009	Percent change	
				1997-2000	2000-2009
Agencies	10,917	7,528	10,961	-31%	46%
Total spending (in billions)	\$17.7	\$8.5	\$18.9	-52	123
Users (in millions)	3.6	2.5	3.3	-31	32
Number of visits per user	72.6	36.8	39.4	-49	7
Percent of FFS beneficiaries who used home health services	10.5%	7.4%	9.4%	-30	27
Number of visits (in millions)	258.2	90.6	129.6	-65	43
Visit type (percent of total)					
Skilled nursing	41%	49%	55%		
Home health aide	48	31	16		
Therapy	10	19	28		
Medical social services	1	1	1		

Note: FFS (fee-for-service).

*Note: Medicare did not pay on a per episode basis before October 2000.

Source: Home health standard analytical file; Health Care Financing Review, Medicare and Medicaid Statistical Supplement, 2002; and Office of the Actuary, CMS.

Background

Medicare home health care consists of skilled nursing, physical therapy, occupational therapy, speech therapy, aide service, and medical social work provided to beneficiaries in their homes. To be eligible for Medicare’s home health benefit, beneficiaries must need part-time (fewer than eight hours per day) or intermittent skilled care to treat their illnesses or injuries and must be unable to leave their homes without considerable effort. Medicare requires that a physician certify a patient’s eligibility for home health care and that a patient receiving service be under the care of a physician. In contrast to coverage for skilled nursing facility services, Medicare does not require a hospital stay to qualify for home health care. In 2008, about 63 percent of home health episodes were for patients admitted directly from the community; that is, the episode was not preceded by a stay in a hospital or other post-acute care facility. Unlike most services in Medicare, copayment or a deductible is not required for home health services.

Medicare pays for home health care in 60-day episodes. Medicare pays for an episode even if patients complete their course of care and are discharged before 60 days have passed. Payments are adjusted for patient severity by

a case-mix system that is based on patients’ clinical and functional characteristics and some of the services they use. If a patient needs additional covered home health services at the end of the initial 60-day episode, another episode commences and Medicare pays for an additional episode. (An overview of the home health payment system is available at: http://medpac.gov/documents/MedPAC_Payment_Basics_10_HHA.pdf.)

Use and growth of home health benefit has varied substantially due to changes in coverage and payment policy

Medicare’s home health benefit has changed substantially since the 1980s. Dramatic increases in home health utilization and spending in the 1990s prompted increased program integrity actions, refinements to eligibility standards, and replacement of the cost-based payment system with a prospective payment system (PPS) in 2000. Between 1997 and 2000, the number of beneficiaries using home health services fell by about 1 million, and the number of visits fell by 65 percent (Table 8-1). Since implementation of PPS, the number of home health episodes between 2001 and 2009 has risen from 3.9 million to 6.6 million. In 2010, the number of agencies was more than 11,400, higher than the supply at the peak

of spending in 1997. With rapid growth in the number of users and the supply of agencies, the benefit is now reaching utilization levels comparable to 1997, when Medicare last took significant steps to curb growth.

The steep declines in services after 1997 do not appear to have adversely affected the quality of care beneficiaries received; one analysis found that patient satisfaction with home health services was mostly unchanged in this period (McCall et al. 2004, RAND Corporation 2006). An analysis of all the Balanced Budget Act of 1997 (BBA) changes related to post-acute care, including the home health interim payment system (IPS) and changes for other post-acute care sectors, concluded that the rate of adverse events generally improved or did not worsen when IPS was in effect (McCall et al. 2003). A study by the Commission also concluded that the quality of care did not decline between 1997 and implementation of PPS (Medicare Payment Advisory Commission 2004). The similarity in quality of care under IPS and PPS suggests that the payment reductions in the BBA led agencies to reduce costs without compromising patient care.

Home health agencies' (HHAs') high Medicare margins, averaging 17.4 percent between 2001 and 2008, have likely encouraged the entry of new HHAs, as the number of agencies participating in Medicare has increased by hundreds a year since 2001, and most beneficiaries live in an area served by multiple agencies. In recent health care reform legislation, the Patient Protection and Affordable Care Act of 2010 (PPACA) included several reductions intended to bring payments more in line with costs:

- **2011**—The base rate for a home health episode is reduced by 2.5 percent, and the market basket update is reduced by 1 percent.
- **2012 and 2013**—The market basket update is reduced by 1 percent.
- **2014 to 2017**—A phased rebasing of an episode payment is implemented to lower payments to a level equal to the costs of the average episode. The Secretary may lower payments by no more than 3.5 percent a year, for a cumulative reduction in payments of 14 percent by 2016. These reductions will be offset by the payment update for each year (under PPACA, the update in 2015 and following years will be equal to the market basket adjusted for productivity).

Past experience suggests that, in the face of payment reductions, many agencies will be able to adjust their

operations to maintain positive financial performance. The experience of 2003, when Medicare implemented a 5 percent reduction to the home health base rate, is illustrative. The effect of this cut was offset by an increase in case-mix values and low annual cost growth of less than 1 percent. With these two factors to offset the reduction in the base rate, average Medicare margins fell by less than 3 percentage points to 15 percent.

Ensuring the appropriate use of home health care is challenging

Policymakers have long struggled to define the role of the home health benefit in Medicare (Benjamin 1993). From the outset, there was a concern that setting too narrow a policy could result in beneficiaries using other, more expensive services, while a policy that was too broad could lead to wasteful or ineffective use of home health care (Feder and Lambrew 1996). Medicare relies on the skilled care and homebound requirements as primary determinants of home health eligibility, but these requirements provide limited guidance.

Home health care can serve as an intermediate level of care for beneficiaries who have difficulty accessing outpatient care or who need intensive assistance with an acute or chronic health problem. For example, beneficiaries returning home after a hospitalization often receive home health care to assist them with the transition. These patients often need help adjusting to or recovering from a recent acute health condition, and in-home nursing visits permit beneficiaries to shorten or avoid post-acute stays at skilled nursing facilities and other higher cost post-acute care providers. Medicare's home health benefit also covers services for beneficiaries who have not been hospitalized, as long as they are homebound and need skilled care.

Medicare's policies for ensuring appropriate use of home health care do not guarantee that services are used in an efficient manner. The broad coverage criteria permit beneficiaries to receive services in the home even when a beneficiary is capable of leaving the home for medical care, which is the case for most beneficiaries. Medicare does not provide any incentives for beneficiaries or providers to consider alternatives to home health care, and beneficiaries, once they qualify, can receive an unlimited number of episodes of care. In addition, the program relies on agencies and physicians to follow program requirements for determining beneficiary needs, but they do not consistently follow Medicare's standards (Cheh et

al. 2007, Office of Inspector General 2001). The variation in following program standards may be one of the factors driving geographic variation in Medicare spending for home health services.

Geographic variability in health care expenditures exists for all sectors, but the variability in spending for home health care is greater than that for other Medicare services. For example, from 2006 through 2008, annual Medicare spending on home health services ranged from \$25 per beneficiary in one core-based statistical area (CBSA) to \$49 per beneficiary in another CBSA. (These CBSAs were at the 25th and 75th percentiles of the distribution of total price-adjusted and health-status-adjusted Medicare spending.) Though differences in practice patterns likely explain some of this regional variation in home health spending, the extent of the variation was so wide and so concentrated in certain CBSAs that it raised concerns about the integrity of home health services in these areas. For example, price-adjusted and health-status-adjusted home health spending for the McAllen, Texas, area was seven times the national average. Consistent with these spending disparities, some areas account for a disproportionate share of home health spending. For example, in 2008, the five highest spending CBSAs accounted for 20 percent of all price-adjusted and health-status-adjusted home health spending.

Fraud and abuse is a substantial challenge in the home health benefit

Program integrity has always been a significant concern in the home health benefit, and recent developments indicate that fraud is once again a significant problem. Federal authorities are investigating or prosecuting home-health-related fraud cases in a number of areas for a range of alleged offenses including billing for services not provided, attempting to bribe federal officials, and paying kickbacks to recruit patients (Department of Health and Human Services and Department of Justice 2011). The number of agencies has increased dramatically in California, Texas, and Florida—states that have experienced program integrity concerns in the past. However, unusual patterns of utilization raise concerns about other areas. For example, in 2008, five counties had more home health episodes than fee-for-service (FFS) beneficiaries. In 25 counties, the rate of FFS beneficiaries using home health services exceeded 20 percent in 2008, more than double the national average.

CMS has conducted several policy initiatives aimed at home health fraud. First, it required all home health providers in Harris County, Texas, and Los Angeles and

some of its adjacent counties to re-enroll in Medicare. Under this demonstration, agencies had to prove that they met Medicare's standards for program enrollment and were visited by a Medicare contractor to verify the agency's existence. Second, CMS implemented a number of safeguards to curtail and recover fraudulent payments for outlier episodes paid to agencies in Florida's Miami-Dade county. CMS modified the outlier policy to reduce the amount of funds it allocated and limited outlier payments to no more than 10 percent of an agency's Medicare revenue. CMS also tightened ownership rules to make it more difficult for potentially fraudulent providers to enter Medicare.

Last year, the Commission recommended that the Congress give the Secretary the authority to suspend payment and the enrollment of new providers in areas that appear to be at high risk of fraud, and PPACA made several changes consistent with this recommendation:

- ***Temporary moratorium for enrollment of new providers.*** The Secretary has authority to halt the enrollment of new HHAs in areas deemed at high risk of fraud. CMS has indicated that it intends to look at a range of indicators when considering the use of this authority, such as when an area's growth in the number of providers or services appears to be disproportionate compared with growth in the number of Medicare beneficiaries. In addition, CMS plans to target areas where states and the Department of Justice have taken steps to curb fraud. CMS will finalize the rules for the new authority in 2011.
- ***Suspension of payments for services or providers that exhibit a high risk of fraud.*** The Secretary also has the authority to suspend payment when unusual patterns are observed for providers or geographic areas. If a review of spending for a certain service in an area finds unusual patterns and indicates a high risk of fraud, the Secretary may temporarily suspend payments for that service in that area. Alternatively, if an analysis indicates that a suspicious pattern is confined to certain providers, the Secretary may suspend payment for those providers. PPACA gives the Secretary discretion regarding the data or evidence required to determine high-risk status, so these new authorities are more flexible than past practices.

PPACA also provides the Secretary with the authority to require additional background checks for new providers of services deemed to be at high risk of fraud, and the

Department of Health and Human Services has indicated that new HHAs will be subject to more stringent review. Under a proposed rule, staff of new HHAs that are not part of a publicly traded company will be subject to criminal background checks, fingerprinting requirements for certain staff, and unannounced pre- and post-enrollment on-site visits. These checks are in addition to the Medicare certification process and are funded through a user fee charged to agencies that apply for billing privileges.

Finally, PPACA added a requirement intended to strengthen physician certification and oversight practices. Beneficiaries will need to have an encounter with a physician or nurse practitioner through an office visit or “telehealth” session when receiving home health care. The change was intended to ensure that beneficiaries receive a complete evaluation when home health care is ordered and that physicians not rely solely on information provided by HHAs when making decisions about patient care. It was believed that adding this requirement would improve program integrity and perhaps improve patient care, but implementation of the requirement may reduce its value. Office visits or telehealth encounters with a physician or nurse practitioner up to 90 days before or 30 days after the beginning of a home health episode will qualify toward the requirement. Such a large window reduces the access-to-care concerns that a prior visit requirement raises but does not ensure that beneficiaries receive an examination in a timely manner before home health care is delivered. CMS delayed enforcement of this requirement to the second quarter of 2011.

Are Medicare payments adequate in 2011?

To address whether payments for the current year (2011) are adequate to cover the costs efficient providers incur and how much providers’ costs should change in the coming year (2012), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries’ access to care by examining the capacity and supply of home health providers and changes over time in the volume of services provided, quality of care, providers’ access to capital, and the relationship between Medicare’s payments and providers’ costs. Overall, the Medicare payment adequacy indicators for HHAs are positive.

Beneficiaries’ access to care: Most, but not all, beneficiaries live in an area served by home health providers

Supply and volume indicators show that beneficiaries have adequate access to home health services. Most beneficiaries live in an area served by home health providers, similar to the Commission’s findings in prior years. Almost all beneficiaries (99 percent) live in a ZIP code served by at least one HHA and 98 percent live in a ZIP code with two or more agencies. Many areas are served by multiple providers, and 60 percent of beneficiaries live in ZIP codes served by 10 or more HHAs.

Our measure of access is based on data collected and maintained as part of CMS’s Home Health Compare database as of November 2010. The service areas listed in the database are postal ZIP codes where an agency provided service in the past 12 months. This definition may overestimate access because agencies need not serve the entire ZIP code to be counted as serving it. At the same time, the definition may underestimate access if HHAs are willing to serve certain ZIPs but did not receive any requests from those areas in the preceding 12 months. This analysis excludes beneficiaries with unknown or missing ZIP codes.

Lower access in some areas may be linked to factors other than Medicare payment

Most regions have access to care, but a small number of beneficiaries live in areas where no agency reported operating. Several factors could explain the absence of an agency, some of which are unrelated to Medicare payment policy. As indicated in the section on financial performance in this chapter, in 2009 agencies in rural areas have average margins of more than 14 percent and those that serve remote rural areas have margins of more than 19 percent.

While this finding indicates that payments are adequate in general, it does not suggest that payments are equitably distributed for rural providers with unusual costs. For example, rural providers in some areas may have higher costs to retain staff. Costs may be higher because of long travel times to patient residences. Some rural areas may have low volumes that make it difficult for providers to operate with the same level of efficiency as agencies in areas with higher volume. Past interventions, such as the current payment add-on for rural areas, have not explicitly targeted rural areas with low access or higher costs; they have simply increased payments for all rural areas. These

**TABLE
8-2**

Number of home health agencies continues to rise

	2002	2003	2004	2005	2006	2007	2008	2009	2010	Average annual percent change	
										2002-2009	2009-2010
Number of agencies	7,057	7,342	7,804	8,314	8,955	9,404	10,036	10,961	11,488	6.5%	4.8%
Agencies that opened	399	562	656	693	828	624	773	1,091	666	15.5	-39.0
Agencies that closed	277	194	183	187	175	141	166	142	139	-9.1	-2.1
Number of agencies per 10,000 beneficiaries	2.0	2.0	2.1	2.3	2.5	2.6	2.8	3.1	3.2	6.4	2.0

Note: Agencies census includes all agencies operating during a year, including agencies that closed or opened.

Source: CMS's Providing Data Quickly database and 2010 trustees' report.

extra payments will raise the already high margins of many rural agencies, and it is unclear whether they have been sufficient to induce agencies to serve areas that have access issues. To the extent that Medicare policy needs to change, a better understanding of the specific factors contributing to higher costs in areas with limited or no access is important. It may be possible to design a payment policy that addresses the low-access areas more efficiently than the across-the-board approach that has been used in the past.

Anecdotal reports indicate that financial pressures from Medicaid and other programs may contribute to limited access in some areas. For example, the experience of one state indicated that Medicare was an adequate payer for rural areas but that declining rates from state Medicaid programs or local government programs were leading some agencies to close. Industry representatives stated that Medicare's high rates helped to subsidize the low payments from other programs.

The Commission believes that using Medicare to subsidize low rates for other payers is inappropriate and inefficient, particularly because the amount of subsidy received would be tied to Medicare volume and not to a shortfall in the agency's Medicaid payments. Such cross-subsidization can encourage states to lower their rates, effectively shifting costs to Medicare. Finally, Medicaid and other programs cover services and populations not covered by Medicare, making the use of Medicare funds to finance these services inappropriate.

The financial performance of rural HHAs suggests that Medicare payment policy is not a factor in low access for

some rural areas. In 2009, the margin of rural HHAs did not differ significantly from that of urban agencies overall, and in the future rural agencies may have higher Medicare margins than urban agencies.

Capacity and supply of providers: Agency participation is at record levels

In 2010, HHAs numbered more than 11,400 with a net increase of 527 agencies (Table 8-2). At this level, the number of agencies has exceeded the high watermark of the 1990s, when the number of agencies exceeded 10,900. The high rate of growth is particularly concerning because new agencies appear to be concentrated in areas with fraud concerns, including California, Texas, and Florida. For example, 67 of the 666 new agencies in 2010 are in Miami-Dade County, Florida, an area that has experienced widespread health care fraud in home health and other services. The number of agencies in this county has doubled since 2007, when CMS launched an enforcement effort in the area.

The number of HHAs has been rising faster than growth in the number of beneficiaries, and this trend continues in 2010. Since 2004, when 99 percent of beneficiaries lived in an area served by an HHA, the number of agencies per 10,000 beneficiaries has risen from 2.1 to 3.2. However, supply can vary significantly among states. In 2008, Texas averaged 7 agencies per 10,000 beneficiaries, whereas New Jersey averaged 0.4 agency per 10,000 beneficiaries. While the extreme variation may imply some differences in access, the number of providers is a limited measure of capacity, as agencies can vary in size and capability. Also, because home health care is not provided in a

**TABLE
8-3**

Share of beneficiaries using home health services continues to rise even as enrollment in Medicare fee-for-service declines

	2002	2003	2004	2005	2006	2007	2008	2009	Average annual percent change	
									2002-2008	2008-2009
FFS beneficiaries (in millions)	35.0	35.9	36.5	36.8	36.2	35.6	35.3	35.2	0.1%	-0.4%
Home health users (in millions)	2.5	2.7	2.8	3.0	3.0	3.1	3.2	3.3	3.3	3.8
Share of beneficiaries using home health care	7.2%	7.5%	7.7%	8.1%	8.4%	8.7%	9.0%	9.4%	3.2	4.3
Total spending (in billions)	\$9.6	\$10.1	\$11.5	\$12.9	\$14.0	\$15.7	\$17.0	\$18.9	8.6	11.2
Episodes (in millions):	4.1	4.5	4.8	5.2	5.5	5.8	6.1	6.6	5.8	7.5
Per home health user	1.6	1.7	1.7	1.8	1.8	1.9	1.9	2.0	2.3	4.5
Per FFS beneficiary	0.12	0.12	0.13	0.14	0.15	0.16	0.17	0.19	5.5	9.0
Payments:										
Per home health user	\$3,803	\$3,780	\$4,053	\$4,339	\$4,621	\$5,076	\$5,370	\$5,748	5.1	7.0
Per FFS beneficiary	\$274	\$282	\$314	\$351	\$388	\$443	\$482	\$538	8.4	11.7

Note: FFS (fee-for-service).

Source: MedPAC analysis of home health standard analytical file.

medical facility, agencies can adjust their service areas as local conditions change. Even the number of employees may not be an effective metric, because agencies can use contract staff to meet their patient needs.

Volume of services continues to rise

The volume trend for 2009 suggests that home health growth is accelerating again. From 2008 to 2009, the number of home health care episodes increased by 7.5 percent, compared with the average annual growth of 5.8 percent between 2002 and 2008 (Table 8-3). The rate of use and the average number of episodes per user increased in 2009, consistent with trends from prior years. Between 2002 and 2009, the share of FFS beneficiaries using home health care increased from 7.2 percent to 9.4 percent. The average number of episodes per user increased from 1.6 to 2.0 from 2002 to 2009. The higher volume likely reflects a number of factors, including the growing number of agencies participating in the program. The rising volume indicates that beneficiaries in most areas generally have adequate access to care.

Some of the rise in episodes in 2009 and earlier years may be attributable to aspects of the PPS that reward volume.

The PPS pays for care in 60-day episodes, so additional episodes result in higher total payments. In addition, agencies can increase payment by providing more therapy visits in an episode. The Commission has observed changes in volume that are consistent with both of these incentives. The number of subsequent episodes (second and later episodes in a spell of continuous episodes) has also grown significantly, as suggested by the rapid rise in the number of episodes per home health user. While some growth is likely related to changes in patient needs, the existence of these incentives can influence decisions about the amount and type of home health services beneficiaries receive.

Changes in therapy distribution

There has long been a concern that providers target therapy visit thresholds used to adjust home health payments, and volume changes since implementation of PPS provide evidence of providers targeting the ranges that appear most profitable. For example, before 2008, Medicare made an additional payment for episodes with 10 or more therapy visits. In the period between 2002 and 2007, episodes with 10 to 13 therapy visits jumped by about 90 percent, an annual rate of 13.8 percent. The

share of episodes with therapy visits just above and below the 10- to 13-visit range was relatively unchanged (Figure 8-1).

In 2008, CMS implemented revisions to the method by which therapy visits are factored in home health payments, replacing a single threshold with nine thresholds that increased payment more gradually. The changes had the effect of lowering payments for episodes in the 10- to 13-visit range, while it raised them for episodes just above and below this level. The threshold changes also resulted in the swiftest one-year change in therapy utilization since PPS was implemented.

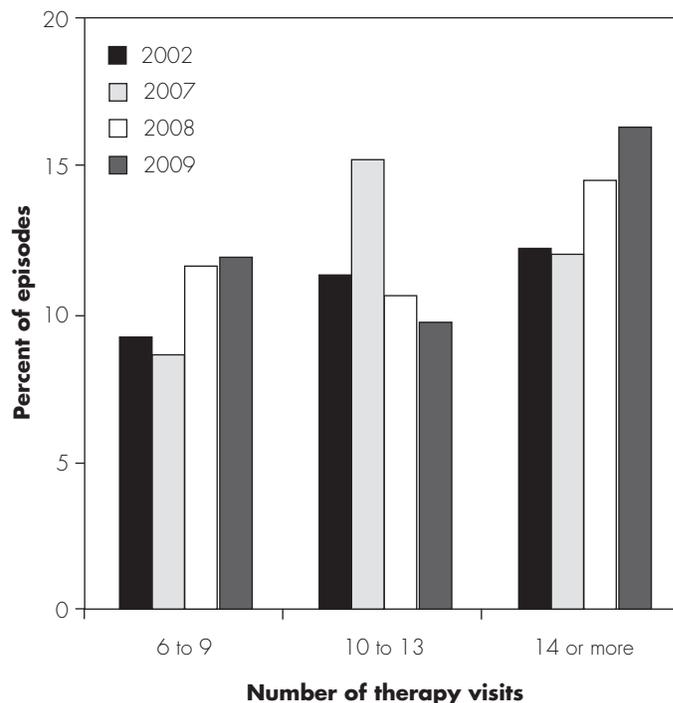
In 2008, the number of therapy episodes with decreased payments under the new system—those in the range of 10 to 13 therapy visits—dropped by about 28 percent. Conversely, payment for episodes with six to nine visits increased by 30 percent, and the share of these episodes increased from 8.6 percent to 11.6 percent. Payment for episodes with 14 or more therapy visits increased by 26 percent, and the share of these episodes increased from 12 percent to 14.5 percent. The immediate change in utilization demonstrates that home health providers can quickly adjust services to payment changes in the therapy visit thresholds. Put another way, the magnitude of the therapy changes and their correlation with the payment threshold changes suggest that provision of therapy is sensitive to payment incentives. In the 2011 home health payment regulation, CMS concluded that a significant portion of the changes in therapy use in 2008 was a “behavioral response” by HHAs attributable to the payment changes.

The volume data for 2009 indicate that the shifts that occurred in 2008 are continuing, though it appears that the decline in the 10- to 13-visit range is stabilizing. Episodes with 14 or more therapy visits increased by more than 20 percent, and those with 20 or more therapy visits increased by 30 percent (not shown). Episodes with six to nine therapy visits increased by 11 percent. The number of episodes in the 10- to 13-therapy-visit range dropped by about 1 percent. While patient severity may be related to some of these shifts, the continuing growth in the highest paid groups reinforces concerns that payment incentives influence the delivery of care.

In addition to changes in volume, anecdotal reports indicate that agencies are very sensitive to the financial incentives of the therapy thresholds. For example, a recent effort to identify best practices in therapy and other

FIGURE 8-1

Growth in episodes by year and number of home health therapy visits



Source: MedPAC analysis of home health standard analytical file.

home health services noted that the use of the therapy thresholds for payment discouraged providers from using or developing best practices to guide therapy care (Hopper et al. 2009). In addition, industry consultants have encouraged HHAs to substitute therapists for nurses or for other services when possible (Shorr 2008). Though some of this substitution may contribute to better outcomes, these examples illustrate that the incentives of the therapy thresholds encourage providers to consider payment incentives, and not necessarily patient characteristics, when determining what services to provide. Agencies may favor therapy services even when lower cost services may offer comparable outcomes. All these indicators suggest that Medicare’s use of therapy visits as a payment factor creates a significant vulnerability and that changes to address this weakness need to be considered.

Beneficiaries without a prior hospitalization account for a rising share of episodes

As the average number of episodes per home health user has increased, the share of episodes that are preceded by a

**TABLE
8-4**

Increase in home health episodes by timing and source of referral

	Number of episodes (in millions)		Percent change 2001-2008	Percent of episodes	
	2001	2008		2001	2008
Episodes preceded by a hospitalization or PAC stay:					
First	1.6	1.8	14%	40%	29%
Subsequent	0.3	0.4	46	8	7
Subtotal	1.9	2.3	19	48	37
Episodes not preceded by a hospitalization or PAC stay:					
First	0.8	1.2	48	20	19
Subsequent	1.3	2.7	111	32	44
Subtotal	2.1	3.9	87	52	63
Total	4.0	6.1	55	100	100
IPPS discharges	12.2	12.4	1.7		

Note: PAC (post-acute care), IPPS (inpatient prospective payment system). "First" indicates no home health episode in the 60 days preceding the episode. "Subsequent" indicates the episode started within 60 days of the end of a preceding episode. "Episodes preceded by a hospitalization or PAC stay" indicates the episode occurred less than 15 days after a hospitalization (including long-term care hospitals), skilled nursing facility, or inpatient rehabilitation facility stay. "Episodes not preceded by a hospitalization or PAC stay" (community admitted episodes) indicates that there was no hospitalization or PAC stay in the 15 days before episode start. Numbers may not add due to rounding.

Source: 2008 Datalink file and 2009 MedPAR data.

hospitalization or other Medicare-covered institutional stay (skilled nursing facility, inpatient rehabilitation facility, or long-term care hospital) has declined. For example, between 2001 and 2008, the share of episodes preceded by a hospitalization or post-acute care stay declined from 48 percent to 37 percent (Table 8-4). This decrease reflects two factors: a shift in how beneficiaries are initially referred to home health care and an increase in the number of episodes they receive after their first episode.

Between 2001 and 2008, the number of first episodes preceded by a hospitalization or post-acute care site increased by 14 percent, while the number of home health episodes not preceded by a hospitalization or post-acute care stay increased by 48 percent. During this period, the number of subsequent episodes increased by an aggregate 87 percent, and a subset—subsequent episodes not preceded by a hospitalization or post-acute care stay—increased by an aggregate 111 percent. Because of these trends, by 2008 most home health episodes were not preceded by a hospitalization or post-acute care stay.

The decline in the share of episodes preceded by a hospitalization or post-acute care stay may be due to a

reduction in the demand for post-hospital care. From 2001 to 2008, FFS hospital discharges did not increase significantly, rising by less than 2 percent cumulatively. In fact, from 2006 to 2008, the number of FFS hospital discharges decreased. This reduced demand for home health post-hospital care occurred just as the number of HHAs was increasing. To compensate for the lack of post-hospital demand, new and incumbent agencies may have favored episodes not preceded by a hospitalization.

Patterns of use at the county level raise questions about the appropriateness of the rise in episodes per user. A review of data for 2008 indicates that a county's rate of use is positively correlated with the number of episodes each home health patient receives (Figure 8-2). That is, as the number of users in a county rises, the number of episodes per home health user increases. It is not clear why beneficiaries in counties with higher use rates would need more services than those in counties with lower rates of use.

Quality

In past reports, the Commission has reported on home health quality measures using the Outcome-Based Quality

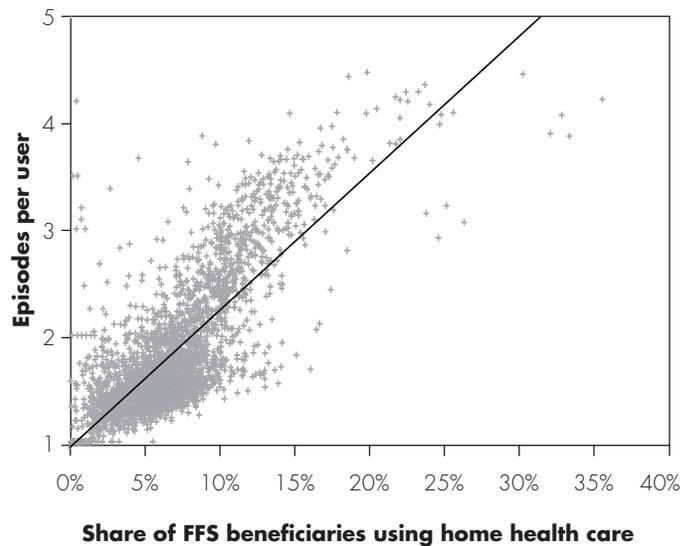
Monitoring (OBQM) data set. These measures, collected through the Outcome and Assessment Information Set, examine patients' clinical severity and functional limitations at the beginning and end of an episode. The Commission reported in prior years that scores for the five functional measures improved, while the adverse event measures (hospitalization and emergency care use) were unchanged (Table 8-5). The data for 2010 follow a similar pattern, although the emergency care use indicator is not reported for 2010.

Though these indicators provide a useful indication of the typical levels of quality overall, the Commission is concerned that the measures did not always capture changes in quality that were specifically related to a patient's need for home health care. For example, improvement in walking is reported for all patients, regardless of whether they needed home health care for a mobility-related condition. The hospitalization rate is for any hospitalization that occurs at discharge from home health services, regardless of the cause. To supplement the broad OBQM measures with additional detail, the Commission has ordered a study by the University of Colorado to develop clinically focused measures that will measure changes in quality related to specific patient diagnosis.

At the Commission's direction, the University of Colorado is examining two areas for more clinically focused measures: the amount of improvement in walking for beneficiaries who receive home health care after a hip or

FIGURE 8-2

Comparison of the rate of FFS beneficiaries using home health and the average number of episodes per user by county, 2008



Note: FFS (fee-for-service). Excludes counties with fewer than 100 Medicare beneficiaries.

Source: MedPAC analysis of home health standard analytical file, 2008.

knee replacement and the hospitalization rate for causes that are potentially preventable. These measures and conditions were selected because they represent areas of special interest by the Commission and the Medicare program. We believed that one of the measures needed to

TABLE 8-5

Outcomes improve on functional measures though the rate of adverse events is unchanged

	2004	2005	2006	2007	2008	2009	2010
Functional measures (higher is better)							
Improvements in:							
Walking	36%	37%	39%	41%	44%	45%	47%
Transferring	50	51	52	53	53	54	54
Bathing	59	61	62	63	64	64	65
Medication management	37	39	40	41	43	43	43
Pain management	59	61	62	63	64	64	64
Adverse event measures (lower is better)							
Hospitalization	28	28	28	28	29	29	29
Emergency care	21	21	21	21	22	22	N/A

Note: N/A (not available).

Source: MedPAC analysis of CMS Home Health Compare data.

**TABLE
8-6**

Medicare margins for freestanding home health agencies, 2008 and 2009

	2008	2009	Percent of agencies, 2009	Percent of episodes, 2009
All	17.0%	17.7%	100%	100%
Geography				
Majority urban	17.3	17.9	83	84
Majority rural	16.0	16.6	17	16
Type of control				
For profit	18.6	18.7	84	82
Nonprofit	12.3	14.4	11	16
Government*	N/A	N/A	N/A	N/A
Volume quintile				
First	9.0	8.9	20	0.8
Second	9.3	8.7	20	3.8
Third	13.3	12.6	20	7.7
Fourth	16.0	16.5	20	15.0
Fifth	18.9	20.1	20	72.7

Note: N/A (not available).

*Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of home health Cost Report files from CMS.

include a mobility-related condition, such as hip or knee replacement, as the amount of therapy provided through home health care has increased significantly. Currently, the OBQMs measure only whether any improvement occurred and not how much improvement occurred. In addition, we wanted to consider a more focused hospitalization rate that includes conditions that evidence suggests could be reduced or prevented by proper home health care. We expect to report the results for these measures next year.

Providers' access to capital: Adequate access to capital for expansion

Few HHAs access capital through publicly traded shares or public debt, like issuing bonds. HHAs are not as capital intensive as other providers because they do not require extensive physical infrastructure, and most are too small to attract interest from capital markets. Information on publicly traded home health companies provides some insight into access to capital but has limitations. Publicly traded companies may have businesses in addition to Medicare home health care, such as Medicaid and private-duty nursing. Also, publicly traded companies are a small portion of the total number of agencies in the industry.

Analysis of the for-profit companies indicates that they have adequate access to capital, though on terms less

favorable than in previous years. The changes in home health policy in PPACA and the 2011 PPS regulation have trimmed revenues for the home health industry. In addition, several federal investigations have been launched into the therapy billing practices of some of the publicly held home health companies. These factors have weakened investor outlook on these firms and made lenders more cautious in the terms they offer home health firms seeking capital. However, there is evidence that the major for-profit companies still have access to capital or are adequately capitalized. One home health firm recently completed a \$1.2 billion acquisition of a large hospice company, and two other home health firms announced stock repurchase programs. These actions suggest that the publicly traded for-profit firms have access to capital markets.

For smaller or nonpublic entities, the entry of new providers indicates that access to capital for privately held agencies is adequate. In 2010, 666 new HHAs entered Medicare; most of these agencies are for profit.

Medicare payments and providers' costs: Payments increase by more than costs in 2009

The average payment per episode increased by 2.5 percent in 2009, as episodes continued to migrate to a higher

**TABLE
8-7**

Attributes of high- and low-margin Medicare home health agencies, 2007

Characteristic	Low-margin agencies	High-margin agencies	All
Medicare margin	-9%	37%	16.9%
Average total visits (Medicare and non-Medicare)	22,437	28,039	26,430
Average Medicare episodes	604	777	830
Average cost per visit (wage index removed)	\$136	\$89	\$113
Composite quality score	0.96	0.96	0.97
Case-mix values	1.23	1.32	1.27
Therapy episodes as a share of total episodes	25%	30%	27%

Note: Values shown are means for the quintile. High-margin quintile agencies were in the top 20 percent of the distribution of Medicare margins in 2007. Low-margin quintile agencies were in the bottom 20 percent of the distribution of Medicare margins in 2007.

Source: 2007 cost reports, 20 percent sample of claims from home health Datalink file, OASIS data.

paying mix of services. The rise in payments was not matched by a proportionate increase in average costs. Cost growth in 2009 was flat; that is, agencies experienced growth of 0.5 percent. This rate is below the change in the home health market basket for 2009 and consistent with the experience of cost below market basket inflation, which has occurred since the inception of PPS. This low rate of cost growth has contributed to the industry’s ability to maintain high Medicare margins in the face of reductions to the payment update.

Medicare payments continue to exceed costs in 2009

In 2009, HHA margins in aggregate were 17.7 percent for freestanding agencies, up from the previous year (Table 8-6). We focus on freestanding agencies because they are the majority of providers and because their costs do not reflect an allocation of overhead costs, as with hospital-based agencies.

Since an individual HHA can serve a mix of urban and rural patients, we determine an agency’s rural or urban designation based on where most of its episodes are located. Under this definition, in 2009, rural providers had slightly lower margins than urban providers, but the difference was less than 2 percentage points. Because PPACA includes a 3 percent add-on for episodes delivered in rural counties, margins for rural agencies may exceed those for urban agencies in future years. To gain a better understanding of providers that serve frontier rural areas, we examined margins for agencies that were majority rural and for which more than 30 percent of episodes were

in counties with urban populations of fewer than 2,500 people. For these agencies, margins were 19.8 percent higher than the margins of all other agencies.

Historically, Medicare margins have varied widely among HHAs. In 2007, the agencies in the bottom quintile of the Medicare margin distribution had an aggregate average margin of -9 percent, while the agencies in the top margin quintile had an aggregate average margin of 37 percent, consistent with the variation reported in prior years (Table 8-7). To better understand the factors driving this variation, the Commission examined in a prior analysis the characteristics of high- and low-margin agencies in 2007. Our analysis of margins by provider, beneficiary, and episode characteristics suggests that providers can deliver quality care and earn significant profits under current payment levels and that those with the lowest costs and the highest case mix have the best financial performance.

The most salient difference between high- and low-margin agencies was in cost per episode and agency size. High-margin agencies had lower costs and higher episode volume. The cost per episode of high-margin agencies was about 40 percent lower than that for low-margin agencies, driven primarily by a lower cost per visit. The lower costs were likely related to the larger average size of high-margin agencies, as higher volume permits them to achieve economies of scale that result in lower costs and better financial performance. The analysis of the case mix of high- and low-margin agencies suggested that Medicare overpays for episodes with high case-mix values, as

**TABLE
8-8****Accuracy of current and model home health case-mix adjusters, 2008**

	Type of service		
	Therapy	Nontherapy	Total
Current case-mix system:			
With therapy thresholds	76.9%	0.1%	55.0%
Without therapy thresholds	11.6	8.2	7.6
Model case-mix system	27.8	14.6	15.3

Note: Nontherapy services include nursing, home health aide, and medical social work visits. Excludes outlier episodes. Values are percent of service use explained by each model (r^2).

Source: Urban Institute analysis of 2008 Datalink file.

high-margin agencies had case-mix values that were 7 percent higher than low-margin agencies. The higher case-mix values were attributable to high-margin agencies providing more therapy episodes (which have higher case-mix values) and nontherapy episodes with high case-mix values. This result suggests that episodes with high case-mix values are overpaid and those with low case-mix values are underpaid.

To better understand the case-mix system finding, the Commission ordered an analysis by the Urban Institute. The analysis found that the current case-mix system predicted 55 percent of episode-level costs for all nonoutlier episodes, but the explanatory power dropped to 7.6 percent if the number of therapy visits received was excluded as a case-mix grouping (Table 8-8).¹ The steep decline in explanatory power indicates that the case-mix adjuster is highly dependent on the inclusion of therapy visits provided and that patient characteristics are less important in the predictive power attained by the current case-mix system. This reliance on the amount of services provided is counter to the goals of prospective payment, as the number of therapy visits provided is not a prospective attribute of a patient but a factor under the control of the provider.

Examining therapy and nontherapy services separately is instructive. The current case-mix system predicted about 77 percent of the variation in episode-level therapy costs but less than 1 percent of the variation in nontherapy costs.² This high predictive value for therapy services is not surprising, as the level of therapy use is built into the case-mix model. But the finding of lower explanatory power for nontherapy costs is quite notable, as the

nontherapy costs compose a majority of home health services. Most home health episodes contain at least one nontherapy visit, and for about 47 percent of full episodes nontherapy visits are the only services provided. For a significant number of episodes, the case-mix system has limited predictive power.

Episodes with the most nontherapy services were significantly affected by the current case-mix system's low explanatory power. The case-mix system correctly identified only 15 percent of the cases in the top decile of nontherapy services.³ This weakness further raises concerns about the current case-mix system, because poor predictive power for high-cost patients provides agencies with an incentive to avoid these patients or reduce services to them.

In addition, episodes with higher case-mix values, including therapy episodes, appeared to be more profitable. The Urban Institute analysis found that for every 1 percent increase in case-mix weight, costs for the average provider increased by about 0.88 percent. This result indicates that, for the average provider, the relative weights (and payments) increased faster than costs increased; thus, providers with higher relative weights receive more generous payments than providers with lower relative weights. Since therapy episodes are most of the high relative weight episodes in the home health PPS, providers with more of these episodes, on average, have lower costs than the case-mix system assumes.

Modeling the impacts of an alternative system

Modeling an alternative case-mix system allows the Commission to assess the impact of using a predictive model to set payments for therapy services and updating the patient characteristics used to predict nontherapy resource use. The alternative system developed by the Urban Institute is intended to be a prototype that would need modification after further analysis, as some factors that might be appropriate for a full payment model have not been assessed. For example, this model system does not account for interactions among diagnostic conditions or include certain factors in the current payment system, such as splitting the episodes into categories based on their timing in a spell of back-to-back episodes. The measures of statistical performance discussed below reflect the current model and will be updated as the Commission refines its work.

The central feature of this model is that it bases payment for therapy services on patient characteristics, which

is conceptually similar to how the existing system sets payment for nontherapy services. A literature review and exploratory statistical analysis were used to identify variables with suitable statistical and policy characteristics, and examples of the predictors in the final model include activities of daily living and other functional measures; several diagnostic categories, including cancer, skin disorders, diabetes, hypertension, Parkinson's disease, and other conditions; other conditions, such as wounds and ulcers; source of admission (e.g., skilled nursing facility, hospital); and information about the type of episode (e.g., whether it is a resumption of care or an initial episode).

Separate models were developed for therapy and nontherapy services. This approach provides some insight into how the relationships for each variable differ for therapy and nontherapy services. However, it may be possible to combine the two models in implementation.

Performance of the model system

The model case-mix system explains about 15 percent of the variation in therapy and nontherapy costs at the episode level (Table 8-8).⁴ Though the current case-mix system has a higher explanatory power, it achieves it by using therapy visits as both an explanatory variable and as a portion of the outcome being predicted. Without the therapy threshold variables, the overall explanatory power of the current case-mix system is substantially lower than the model system.

The improvement in explanatory value for the model case-mix system is even greater at the service-type level. The model system has an explanatory value of 14.6 percent for nontherapy services at the episode level, compared with less than 8.2 percent for the current system. For therapy services, the model system explains 27.8 percent of the costs at the episode level. The model is also superior in predicting resource use for high-cost nontherapy cases. It correctly identifies 28 percent of the highest cost nontherapy cases, an improvement that is almost double what the predictors in the current payment system achieve.

Distributional impacts of the model's refinements

Under the model's refinements, the most significant payment changes would be that many nontherapy services that appear to be undervalued under the current case-mix system would see large payment increases. The model would lower payments for therapy episodes by 10 percent and increase them for nontherapy episodes by 25 percent (Table 8-9, p. 190). Payments for dual-eligible Medicare

beneficiaries would increase by 1.3 percent. Payments for hospital-based HHAs would increase 7.5 percent, while payments for freestanding agencies would fall by 1.4 percent. Nonprofit agencies, which typically provide less therapy, would see their payments increase by 7 percent on average.

Agencies that provided more of the services undervalued under the current system—principally nontherapy services—would have higher margins under the new system. Agencies that provided the most nontherapy episodes would see an increase of 16.7 percent, while those that provided the most therapy services would see a decrease of 18.3 percent (Table 8-10, p. 191).

Overall, the model case-mix system offers several advantages over the current case-mix system. It eliminates the incentive to provide more therapy visits solely to increase payment; it significantly improves payment accuracy for nontherapy services, the majority of services provided; and it improves the accuracy of payments for high-cost beneficiaries who have significant nursing and home health aid needs.

Projecting margins for 2011

In modeling 2011 payments and costs, we incorporate policy changes that will go into effect between the year of our most recent data, 2009, and the year for which we are making margin predictions. The major changes are:

- payment updates in 2010 and 2011, the latter equal to market basket minus 1 percent under PPACA;
- a 3 percent add-on for episodes provided in rural areas under PPACA;
- a base rate reduction of 2.5 percent in 2011 attributable to PPACA;
- a planned 2010 and 2011 payment reduction of 3.89 percent to account for coding improvement in 2000 through 2009;
- a case-mix value increase of 2 percent a year (due to an increase in patient severity, coding improvement, and utilization changes); and
- assumed cost increases of 1 percent in 2010 and 1.7 percent in 2011 (based on historic trends).

On the basis of these factors, we project a margin of 14.5 percent in 2011.

**TABLE
8-9****Ratio of payments under model system to payments under current case-mix system**

	Type of episode				
	All	Therapy	Nontherapy	High nontherapy	Dual eligible
All agencies	1.000	0.899	1.246	1.291	1.013
Type of facility					
Freestanding	0.986	0.880	1.242	1.289	1.004
Hospital based	1.075	1.001	1.276	1.305	1.085
Type of control					
Nonprofit	1.070	1.001	1.280	1.294	1.083
For profit	0.962	0.842	1.231	1.287	0.987
Government	1.048	0.924	1.279	1.317	1.059
Geography					
Urban	0.996	0.901	1.249	1.289	1.009
Rural	1.022	0.892	1.239	1.299	1.033
Volume quartile					
First	1.018	0.858	1.303	1.299	1.005
Second	1.024	0.898	1.292	1.332	1.036
Third	1.000	0.890	1.261	1.293	1.020
Top	0.997	0.903	1.233	1.282	1.008

Note: High nontherapy episodes are those in the top decile of actual nontherapy resource use. Analysis excludes payment outlier episodes.

Source: Urban Institute analysis of Datalink file, 2008 data.

Medicare continues to overpay for home health services

The high margins for home health in 2011 reflect that payments substantially exceed costs and that the PPACA reductions and administrative adjustments by CMS have not significantly reduced payments. These findings are consistent with those of previous years; on average, Medicare home health payments have exceeded costs by 17.5 percent since 2001. These high profits occur despite numerous efforts to lower margins. In every year but one, 2007, the payment update has been reduced through legislative changes, administration action, or both. However, average payments have increased each year, in part because HHAs have increased the number of episodes that qualify for additional therapy payments. The combination of low cost increases and rising average payments has resulted in overpayments that are inconsistent with paying at a level to support the efficient provider and contribute to the long-run sustainability challenges of the program. Since home health care is financed through Part A and Part B, the higher payments contribute to the insolvency of the Hospital Insurance

Trust Fund and the cost of the Part B premium paid by beneficiaries. High payments may also encourage the entry of marginal or fraudulent providers who are disproportionately motivated by the financial returns offered by excessive payments.

These overpayments likely originated when Medicare established the initial PPS payment rates. The BBA required that the PPS base rate for a home health episode be budget neutral so that aggregate spending would equal the spending that would have occurred if IPS had remained in effect. However, between 1998 and 2001, the average number of home health visits per episode dropped from 31.6 to 21.4 visits and has remained at about this level through 2009 (Table 8-11, p. 192). Even though some reductions were made to the initial base rate, these adjustments did not anticipate the magnitude by which HHA costs would fall. HHAs had average Medicare profits of more than 23 percent in 2001, the first year the base rate was in effect. Because providers delivered fewer visits than was assumed, payments under PPS have been consistently greater than providers' costs. Medicare rates

**TABLE
8-10**

Change in payments for home health agencies under alternative model

	Number of providers	Payment ratio	Decrease				Increase		
			≥25%	10 to 25%	5 to 10%	-5 to +5%	5 to 10%	10 to 25%	≥25%
All agencies	1,832	1.000	4%	16%	10%	24%	12%	23%	11%
Type of facility									
Freestanding	1,540	0.986	5	18	11	24	11	21	10
Hospital based	292	1.075	0	7	8	24	15	34	14
Type of control									
Nonprofit	387	1.070	1	7	9	25	16	31	12
For profit	1,279	0.962	5	20	11	25	11	20	9
Government	166	1.048	2	8	5	19	11	28	26
Percent of Medicaid episodes									
Highest 10 percent	190	1.013	9	17	7	16	12	23	16
Lowest 10 percent	184	0.964	5	20	10	23	9	16	16
Percent of episodes with therapy (6 or more visits)									
Highest 10 percent	184	0.817	27	45	14	9	2	3	0
Lowest 10 percent	184	1.167	0	0	2	8	6	33	52
Average nontherapy minutes for nontherapy episodes									
Highest 10 percent	178	1.036	6	13	5	19	11	26	20
Lowest 10 percent	178	0.959	7	24	11	20	8	20	11

Note: Analysis excludes payment outlier episodes.

Source: Urban Institute analysis of Datalink file, 2008 data.

started out too high, and since then the cost increases have not kept pace with the annual payment update, permitting HHAs to maintain high margins.

The need to reset the base rate in Medicare is particularly acute because the high margins exist across the range of agency types. Urban, rural, for-profit, and nonprofit agencies have margins in excess of 14 percent. While some agencies have margins significantly lower than average, the Commission’s review found that these differences are primarily due to their higher costs. These higher costs do not appear to be related to patient severity, as for most measures low-margin agencies did not serve more severe patients. Low-margin agencies provided fewer episodes that qualified for additional therapy payments, and the Commission believes the current case-mix adjuster overvalues these services. However, fixing this imbalance can be accomplished by refining the case-mix adjuster, as discussed earlier. It would still be necessary to lower

the base rate to ensure that high margins do not continue, as changes in the case-mix adjusters affect only the distribution of payments among providers and not the total amount of spending.

Encouraging appropriate use of the home health benefit

Most of Medicare’s policies for appropriate use have addressed supply-side issues by creating incentives and policies intended to ensure that physicians and HHAs provide appropriate care. Adding a beneficiary cost sharing for home health care could be an additional measure to encourage appropriate use of home health services. The health services literature has generally found that beneficiaries consume more services when cost sharing is limited or nonexistent, and some evidence suggests that these additional services do not always contribute to improved health outcomes. Cost sharing may be appropriate for home health care because there are no clear clinical

**TABLE
8-11**

Change in visits per episode before and after the implementation of PPS

	1998	2001	2009	Percent change	
				1998-2001	2001-2009
Physical therapy	3.1	4.3	4.8	40.4%	11.1%
Occupational therapy	0.5	0.8	1.0	43.7	35.5
Speech-language pathology	0.2	0.2	0.2	-7.1	7.5
Skilled nursing	14.1	10.5	11.8	-25.2	12.2
Medical social work	0.3	0.2	0.1	-35.8	-32.9
Home health aide	13.4	5.5	3.5	-59.1	-35.6
Total	31.6	21.4	21.5	-32.1	0.2

Note: PPS (prospective payment system). The home health PPS was implemented in October 2000.

Source: CMS 2000; MedPAC analysis of home health standard analytical file, excluding low utilization payment adjustment episodes.

standards for many uses of the benefit. Some of this growth reflects longer stays in home health care, and there is a concern that long-term use of the service in some instances may represent the benefit acting more as a long-term care benefit than is appropriate for Medicare. Adding a cost-sharing requirement would give beneficiaries some incentive to weigh the value of home health services before accepting them and would dissuade beneficiaries from using it when it has minimal value. Cost sharing would also mitigate incentives in the home health PPS that reward volume.

A disadvantage of requiring beneficiary cost sharing for post-hospital episodes of home health care is that it could encourage beneficiaries to use higher cost post-acute care settings, such as skilled nursing facilities or inpatient rehabilitation facilities. However, beneficiaries admitted directly to home health care from the community or those entering a second or later home health episode would be ineligible or unlikely to use other post-acute care providers. In addition, cost sharing for these episodes would focus the incentive on categories of episodes that have exhibited high rates of growth.

The financial incentives under PPS encourage the use of more episodes, so a per episode copayment, as opposed to a per visit copayment, would best target providers' financial incentives. A per visit copayment could drive beneficiaries to demand fewer visits in an episode, which could compound an agency's incentive to stint on care under PPS's global payment. The per episode copayment would be less financially burdensome for beneficiaries who require more visits in an episode, as those additional visits would not increase beneficiary liability.

Setting the cost-sharing amount

The amount of the copayment could take several forms. Research from the RAND Health Insurance Experiment (HIE), a seminal study on utilization, suggests that the greatest marginal impact on utilization occurs when beneficiary liability rises from no cost sharing to even a relatively small amount (while the HIE study is considered important, it did not specifically assess the impact of cost sharing for the elderly or for home health services). For example, Medicare currently charges 20 percent coinsurance for many Part B services. Setting the copayment amount equal to 20 percent of the average episode payment would have resulted in a copayment of \$600 in 2008. This amount, equal to more than half of the inpatient hospital deductible, would be excessive for a single episode of service. As a practical matter, policymakers could consider a lower amount.

At \$300 per episode, a copay would equal 10 percent of the average episode. For the average nonoutlier episode in 2008, a \$150 copayment would equal about \$9 per home health visit, less than the amount a beneficiary would pay for a typical outpatient evaluation and management visit or outpatient therapy visit (\$12 to \$25), depending on the length of the visit. Other Medicare services have cost sharing that is significantly higher. For example, in 2011 the inpatient hospital deductible is more than \$1,000 per spell of illness, and beneficiaries must pay \$141.50 for each day of skilled nursing facility care after the 20th day of a stay (Table 8-12).

Under a \$150 copayment, Medicare would still pay the majority of home health benefit expenses, and beneficiaries

**TABLE
8-12****Cost-sharing requirements for selected Medicare services in 2011**

Category	Amount
Part A	
Hospital stay	\$1,132 deductible for days 1–60 each benefit period. \$283 per day for days 61–90 each benefit period. \$566 per “lifetime reserve day” after day 90 each benefit period (up to 60 days over lifetime).
Skilled nursing facility stay	\$0 for the first 20 days each benefit period. \$141.50 per day for days 21–100 each benefit period. All costs for each day after day 100 in the benefit period.
Hospice care	\$0 for hospice visits. Up to a \$5 copay for outpatient prescription drugs. 5% of the Medicare-approved amount for inpatient respite care.
Blood	All costs for the first 3 pints (unless donated to replace what is used).
Part B	
Deductible	The first \$162 of Part B-covered services or items.
Physician and other medical services	20% of the Medicare-approved amount for physician services, outpatient therapy (subject to limits), most preventive services, and durable medical equipment.
Outpatient hospital services	A coinsurance or copayment amount that varies by service, averaging 23% in 2009. These rates are scheduled to phase down to 20% over time. No copayment for a single service can be more than the Part A hospital deductible (\$1,100 in 2010).
Mental health services	45% of the Medicare-approved amount for outpatient mental health care.*
Clinical laboratory services	\$0 for Medicare-approved services.
Home health care	\$0 for home health care services.
Durable medical equipment	20% of the Medicare-approved amount.
Blood	All costs for the first 3 pints, then 20% of the Medicare-approved amount of additional pints (unless donated to replace what is used).

Note: A benefit period begins the day a beneficiary is admitted to a hospital or skilled nursing facility and ends when the beneficiary has not received hospital or skilled nursing care for 60 days in a row. If the beneficiary is admitted to the hospital after one benefit period has ended, a new benefit period begins and the beneficiary must again pay the inpatient hospital deductible. There is no limit to the number of benefit periods. Part A cost sharing increases over time by the same percentage update applied to payments to inpatient hospitals and adjusted to reflect real change in case mix.

* This coinsurance rate is scheduled to phase down to 20 percent by 2014.

Source: CMS. 2010. *Medicare & You 2011*. Baltimore, MD: CMS.

would receive significantly more in benefits, on average, than they paid in cost sharing. For example, for the average episode payment of about \$3,000 in 2008, Medicare would pay about \$29 in benefits for every \$1 the beneficiary paid. The ratio of program expenditures to beneficiary expenditures would be even greater for episodes with above average resource use.

One concern with cost sharing is that it can lead beneficiaries to reduce their use of effective as well as ineffective care. Although some studies have found evidence of adverse effects of reduced care due to cost

sharing (Chandra et al. 2010, Rice and Matsuoka 2004), the RAND HIE, concluded that, on average, nonelderly patients who consumed less health care because of cost sharing suffered no net adverse effects (Newhouse 1994). However, none of these studies specifically assessed cost sharing for home health benefits.

There are concerns that a copay could result in adverse effects. For example, the HIE study found that some health outcomes were worse for low-income beneficiaries subject to higher cost sharing. However, a mitigating factor is that beneficiaries dually eligible for Medicare and Medicaid

would not be subject to the copay because cost sharing is covered through Medicaid. Not all states cover these expenditures, but beneficiaries are not required to pay the cost sharing when it is not covered by the state Medicaid program; in these instances, the federal Medicare payment is the only reimbursement the provider receives. In addition, episodes with four or fewer visits could also be exempt from cost sharing to protect against the potential for users with relatively few visits to shoulder a disproportionately high burden. With these exceptions, a preliminary estimate indicates that in 2008, about 33 percent of episodes would have been subject to a copayment. Similarly, about one-third of beneficiaries who used home health services, equal to 1 million beneficiaries, would have to pay the copayment. The other 2.2 million beneficiaries who used home health services in 2008 would not have to pay because they were dual-eligible beneficiaries, the episodes they received were preceded by a hospital or post-acute care stay, or they received few visits in their episode.

How should Medicare payments change in 2012?

Our review of the Medicare home health benefit indicates that access is more than adequate in most areas and that Medicare payments are well in excess of costs. On the basis of these findings, the Commission has concluded that home health payments need to be significantly reduced. In addition to payment adequacy, the Commission is concerned that a number of long-standing problems in the home health benefit have not been addressed. For example, for many years the Commission and others have noted the aberrant patterns of home health use, which suggest fraud. In addition, the rising utilization of therapy services is clearly tied to distortions in the payment system. These trends suggest that Medicare does not receive the highest value from its home health expenditures and that changes are necessary to make the payment system more effective and efficient. Specifically, Medicare needs to address payment accuracy, beneficiary incentives, and program integrity. The Commission is also including our recommendation from last year which creates patient safeguards (see text box, p. 197).

Update recommendation

RECOMMENDATION 8 - 1

The Secretary, with the Office of Inspector General, should conduct medical review activities in counties that have

aberrant home health utilization. The Secretary should implement the new authorities to suspend payment and the enrollment of new providers if they indicate significant fraud.

RATIONALE 8 - 1

For many years, the Commission has noted widespread patterns of aberrant home health utilization. Utilization data suggest that agencies in some counties are increasing the demand for home health care by expanding to serve less severe patients who do not meet Medicare coverage requirements for home health care or by billing for services not provided. Under PPACA, the Department of Health and Human Services has the authority to suspend payment and the enrollment of new providers in areas where widespread fraud is occurring. As a precursor to using these new authorities, the Department of Health and Human Services and the Office of Inspector General should conduct claims reviews in counties that have aberrant patterns of use.

As a first step, the Secretary should focus on areas that have home health use rates that are more than twice the national average and where more than 20 percent of all FFS beneficiaries used home health services (Table 8-13). In these counties, an average of 26 percent of FFS beneficiaries used home health care, compared with 9.4 percent nationwide, and the average user received 3.5 episodes, compared with 2 episodes per user nationwide. Differences in patient severity, the availability of other services, and other legitimate factors may explain some of the high use in these areas, but differences so much greater than the national benchmarks warrant further exploration. The Secretary should review claims in these areas to determine whether evidence of fraud exists, and the new authorities in PPACA should be implemented if warranted.

IMPLICATIONS 8 - 1

Spending

- The Congressional Budget Office has already scored savings from the PPACA provision, so its baseline assumes savings for the new authorities. Implementing this authority for home health care would lower home health spending if fraud were discovered. CMS and the Office of Inspector General would incur some administrative expenses to conduct these activities.

Beneficiary and provider

- Appropriately targeted reviews would not significantly affect beneficiary access to care or provider willingness to serve beneficiaries.

**TABLE
8-13****Counties with highest rates of use of home health care and average episodes per user, 2008**

State	County	Number of:			Share of FFS beneficiaries using home health	Episodes per user
		FFS beneficiaries	Home health users	Episodes		
TX	Starr	7,500	2,654	11,197	35.4%	4.2
TX	Hidalgo	65,769	21,834	84,585	33.2	3.9
TX	Duval	1,891	618	2,515	32.7	4.1
TX	Brooks	1,243	397	1,547	31.9	3.9
TX	Jim Hogg	774	233	1,038	30.1	4.5
FL	Miami-Dade	172,924	45,301	138,730	26.2	3.1
TX	Zapata	1,440	367	1,502	25.5	4.1
TX	Cameron	38,082	9,528	30,673	25.0	3.2
OK	Choctaw	3,554	877	3,574	24.7	4.1
TX	Jim Wells	5,395	1,326	5,280	24.6	4.0
MS	Claiborne	1,135	278	811	24.5	2.9
TX	Red River	3,025	723	3,015	23.9	4.2
TX	Willacy	2,673	633	1,992	23.7	3.1
LA	Madison	1,653	390	1,699	23.6	4.4
OK	McCurtain	6,036	1,398	6,000	23.2	4.3
MS	Sharkey	1,015	228	957	22.5	4.2
LA	East Carroll	1,379	308	1,320	22.3	4.3
TX	Webb	21,238	4,661	17,905	21.9	3.8
MS	Jefferson	1,349	296	1,247	21.9	4.2
LA	Avoyelles	7,117	1,561	6,312	21.9	4.0
OK	Pushmataha	2,636	571	2,169	21.7	3.8
OK	Latimer	1,595	345	1,463	21.6	4.2
TN	Hancock	992	211	803	21.3	3.8
LA	Caldwell	1,987	405	1,673	20.4	4.1
LA	Washington	7,741	1,557	5,672	20.1	3.6

Note: FFS (fee-for-service).

Source: MedPAC analysis of the 2008 home health standard analytical file and the 2008 Medicare Denominator file.

RECOMMENDATION 8-2

The Congress should direct the Secretary to begin a two-year rebasing of home health rates in 2013 and eliminate the market basket update for 2012.

RATIONALE 8-2

PPACA has legislated that a limited rebasing begin in 2014, but such a delay appears unnecessary given the current indicators for the home health industry. However, the Commission believes that rebasing should be implemented at the same time as or immediately after the revisions to the case-mix adjustment (described in Recommendation 8-3). These changes would ensure that under rebasing the distribution of payments among

providers more accurately reflects patient severity. For 2012, the Commission recommends eliminating the market basket update and implementing a two-year phased-in rebasing beginning in 2013, concurrent with the revisions to the case-mix system. Basing payments on providers' actual costs would effectively reset payment rates to lower levels.

IMPLICATIONS 8-2**Spending**

- This recommendation would reduce Medicare spending \$250 million to \$750 million in 2012 and \$5 billion to \$10 billion over 5 years.

Beneficiary and provider

- Some reduction in provider supply is likely, particularly in areas that have experienced rapid growth in the number of providers. Access to appropriate care is likely to remain adequate, even if the supply of agencies declines.

RECOMMENDATION 8-3

The Secretary should revise the home health case-mix system to rely on patient characteristics to set payment for therapy and nontherapy services and should no longer use the number of therapy visits as a payment factor.

RATIONALE 8-3

The home health case-mix system has significant weaknesses; its use of therapy visits as a payment factor creates a financial incentive for providers to deliver visits based on their payment impact, and it has a low predictive power for nontherapy services. These findings indicate that unless the case-mix system is revised, agencies will continue to have significant incentives to favor therapy patients, avoid high-cost nontherapy patients, and base the number of therapy visits on payment incentives instead of patient characteristics. A revised system would reduce or eliminate these problems and encourage agencies to focus on beneficiary characteristics when setting plans of care. As stated in Recommendation 8-2, the Commission believes the revisions to the case-mix system should be implemented before or concurrently with payment rebasing.

IMPLICATIONS 8-3

Spending

- The approaches could be implemented in a budget-neutral manner and should not have an overall impact on spending.

Beneficiary and provider

- This recommendation would increase payments for hospital-based agencies, rural agencies, and small agencies. Patients who need therapy may see some decline in access, but these services would be available on an outpatient basis after the home health episode ended.

RECOMMENDATION 8-4

The Congress should direct the Secretary to establish a per episode copay for home health episodes that are not preceded by hospitalization or post-acute care use.

RATIONALE 8-4

Medicare's home health care benefit is unusual in that Medicare does not require beneficiary cost sharing, and this exception likely has contributed to the significant rise in utilization for these services. Adding a copayment would sensitize beneficiaries to the cost of the benefit. Existing policy mechanisms to guide appropriate home health use, such as provider or physician attestations of beneficiary need and eligibility for home health care, have had limited effectiveness. The cost-sharing requirement could exclude episodes with four or fewer visits and dual-eligible beneficiaries.

Under this recommendation, the Secretary would have the authority to set many key parameters for the copay. As discussed earlier, the amount of the copay should weigh several concerns, and this chapter offers an illustrative copay of \$150 per episode. In setting the amount, the Secretary should consider that the rapid growth in these episodes suggests some overutilization but also that a copay set unduly high may dissuade some beneficiaries from seeking needed care or lead them to seek care in more expensive settings. The amount should be sufficient to discourage low-value episodes but not so high as to set a burden that is excessive. Ensuring that the copay does not create systematic access problems is critical. The Commission would carefully monitor changes in utilization after the implementation of a copay, with particular emphasis on changes in access and quality of care.

IMPLICATIONS 8-4

Spending

- A copay of \$150 per episode (excluding low-use and post-hospital episodes) would reduce Medicare spending \$250 million to \$750 million in 2012 and \$1 billion to 5 billion over five years. Expenditures for services would decrease because some beneficiaries who would otherwise use home health services might decline them. Since many of these services are funded by Part B, decreases in spending growth would reduce Part B premiums.

Beneficiary and provider

- Some beneficiaries might seek services through outpatient or ambulatory care, for which Medicare already has cost-sharing requirements. Some beneficiaries who need relatively few services would have lower cost sharing if they substituted ambulatory care for home health care. ■

Creating payment safeguards to protect beneficiary care during payment rebasing

Last year the Commission recommended that the home health prospective payment system (PPS) be modified to include payment corridors or other safeguards. A clearly defined unit of service is critical to a robustly functioning PPS. However, the home health product is not well defined, and the types of services received by beneficiaries with the same characteristics vary greatly. Adding profit-and-loss risk corridors or other cost-based reimbursement elements to the current PPS would address some of these concerns.

Under these approaches, agencies with high profits after rebasing would have to return some of their payments, and those with low margins would receive additional payments to compensate for a portion of their losses. Such transfers would reduce the incentive for high-margin agencies to increase profits by stinting and would protect agencies with lower margins for costs that may be beyond their control. The addition of a profit-and-loss corridor could also moderate the extremes of financial performance, partly compensating for the limitations of PPS in reimbursing for a service that is not well defined.

The safeguards could be based on how providers changed the delivery of care after the rebasing, with the goal of redistributing payments to providers that maintained relatively higher levels of service. Agencies that held their visits per episode steady relative to a pre-rebasing benchmark would have relatively favorable

treatment under the safeguards, and those that reduced their visits would receive more restrictive treatment. For example, under the profit-and-loss corridors, the adjustment for agencies that did not reduce their visits per episode could be more generous.

Approaches that mix PPS and corridors or cost-based payment involve trade-offs because, while softening the impact of rebasing, they could weaken incentives for provider efficiency. Unlike the current PPS, agencies that were able to lower their costs would see their payments fall, because efficiency gains would result in lower provider revenue. However, the risk corridors could be set narrowly enough so that they would recover or compensate for only a small fraction of excessive profits or extreme losses above the corridor thresholds. This result would maintain some of the rewards and penalties for efficiency. Avoiding a system that relies too heavily on cost to set payments would not be prudent, as the cost-based system in effect in the early and mid-1990s proved vulnerable to abuse.

Recommendation 3B-2A from the Commission's March 2010 report

The Congress should direct the Secretary to expeditiously modify the home health payment system to protect beneficiaries from stinting or lower quality of care in response to rebasing. The approaches should include risk corridors and blended payments that mix prospective payment with elements of cost-based reimbursement. ■

Endnotes

- 1 This analysis reflects the current clinical and functional groupings of the PPS. A restructuring of these groups is likely to increase the explanatory value of the PPS. However, for this analysis the Commission analyzed the PPS using the current set of clinical and functional groups because it more closely follows the groups used for actual payments in 2008 and later years.
- 2 The analysis of the current and alternative system excludes outlier episodes. Reports from the Office of Inspector General and Government Accountability Office indicated that these episodes are susceptible to fraud, and consequently they should be excluded. CMS excluded outlier episodes when it developed the case-mix system in 2008.
- 3 This calculation also excludes episodes that qualified for outlier payment.
- 4 See Endnote 2.

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CHAPTER

9

**Inpatient rehabilitation
facility services**

R E C O M M E N D A T I O N

- 9** The Congress should eliminate the update to the payment rates for inpatient rehabilitation facilities in fiscal year 2012.

COMMISSIONER VOTES: YES 16 • NO 0 • NOT VOTING 0 • ABSENT 1

Inpatient rehabilitation facility services

Chapter summary

Inpatient rehabilitation facilities (IRFs) provide intensive rehabilitation services to patients after an injury, illness, or surgery. These services include physical and occupational therapy, rehabilitation nursing, prosthetic and orthotic services, and speech–language pathology. In 2009, almost 360,000 Medicare fee-for-service (FFS) beneficiaries received care in IRFs. Between 2008 and 2009, Medicare FFS expenditures for IRF services increased slightly from \$5.96 billion to \$6.07 billion, largely due to an increase in volume and case-mix severity.

Assessment of payment adequacy

Our indicators of Medicare payment adequacy for IRFs, discussed below, are generally positive.

Beneficiaries' access to care—Our measures of access to care suggest that beneficiaries have sufficient access to IRF services.

- **Capacity and supply of providers**—After declining slightly in 2006 and 2007, the aggregate supply of IRFs stabilized in 2008 and 2009. IRF occupancy rates also remained stable in 2009, after decreasing from 67.8 percent in 2004 to 61.3 percent in 2007. In addition, the rate of decline in the number of rehabilitation beds since 2005 tapered off in 2009. The

In this chapter

- Are Medicare payments adequate in 2011?
.....
- How should Medicare payments change in 2012?
.....

relative stability in provider supply and the number of available rehabilitation beds suggest that capacity remains adequate to meet demand.

- ***Volume of services***—The volume of Medicare FFS beneficiaries treated in IRFs remained stable in 2009. Our assessment of hospital discharge patterns to post-acute care settings suggests that beneficiaries who were not admitted to IRFs as a result of the 2004 CMS compliance threshold were able to obtain rehabilitation care in other settings, such as skilled nursing facilities and home health agencies.

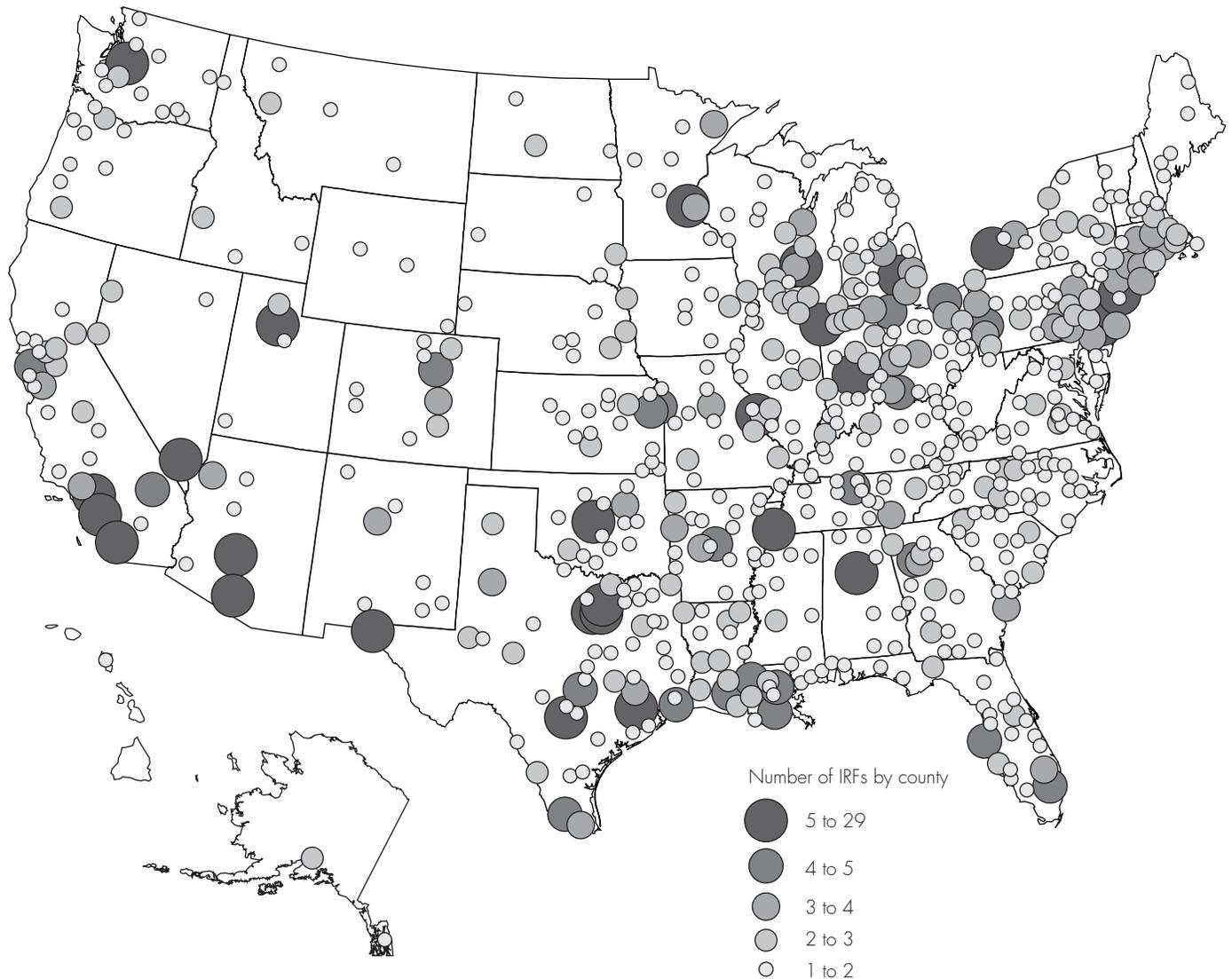
Quality of care—From 2004 through 2010, IRF patients’ functional improvement between admission and discharge increased, suggesting improvements in quality. However, changes over time in the mix of the types of patients treated in IRFs make it difficult to draw definitive conclusions about quality trends.

Providers’ access to capital—Hospital-based units, through their parent institutions, have adequate access to capital. One major freestanding IRF chain also appears to have adequate access to capital. We are not able to determine the ability of independent freestanding facilities to raise capital.

Medicare payments and providers’ costs—Although aggregate costs grew faster than total Medicare payments in 2009 due, in part, to a payment reduction that kept 2009 payments at 2007 levels, the IRF aggregate Medicare margin for 2009 was 8.4 percent. We project that the 2011 Medicare IRF margin will be 8.1 percent. To the extent that IRFs restrain their cost growth in response to fiscal pressure from reductions in market basket updates, the projected 2011 margin could be higher than we have estimated. On the basis of our analyses, we conclude that IRFs in the aggregate could absorb cost increases and continue to provide care to clinically appropriate Medicare cases with a zero update to payments in 2012. We will closely monitor payment update indicators to reassess our update recommendation for the next fiscal year. ■

**FIGURE
9-1**

Geographic distribution of IRFs, 2009



Note: IRF (inpatient rehabilitation facility).

Source: MedPAC analysis of 2009 Provider of Service files from CMS.

Background

After an illness, injury, or surgery, some patients receive intensive rehabilitation services, such as physical and occupational therapy and rehabilitation nursing in a coordinated, multidisciplinary manner, in an inpatient rehabilitation facility (IRF). To qualify for Medicare coverage, IRF patients require supervision by a rehabilitation physician, the use of an interdisciplinary

approach to care, and a clinical need for therapy in at least two disciplines. IRFs may be specialized units within an acute care hospital or specialized freestanding hospitals, which tend to be larger. Approximately 80 percent of IRFs are hospital-based units and the remainder of the industry is freestanding facilities.

In 2009, there were almost 1,200 IRFs in the United States, with at least one located in every state and the District of Columbia. Figure 9-1 shows the geographic

**TABLE
9-1**

Medicare FFS spending, volume, and utilization for IRFs

	TEFRA			PPS			Average annual change		
	2001	2002	2004	2007	2008	2009	2002-2004	2004-2008	2008-2009
Medicare spending (in billions)	\$4.51	\$5.65	\$6.43	\$6.08	\$5.96	\$6.07	6.7%	-1.9%	1.8%
Number of cases	N/A	401,000	455,000	364,000	356,000	361,000	6.5	-6.0	1.5
Unique patients per 10,000 FFS beneficiaries*	N/A	104.1	113.2	93.2	91.5	92.9	4.3	-5.2	1.5
Payment per case	\$9,982	\$11,152	\$13,275	\$16,143	\$16,649	\$16,568	9.1	5.8	-0.5
ALOS (in days)	14.0	13.3	12.7	13.2	13.3	13.1	-2.3	1.2	-1.5

Note: FFS (fee-for-service), IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), N/A (not available), ALOS (average length of stay). With respect to unique FFS patients in a particular year, each IRF FFS patient is counted only once during that year, regardless of whether the patient had multiple IRF admissions in that year. Data on spending are from the Office of the Actuary and the rest of the data on the chart are from the MedPAR. As discussed in the payment per case section on p. 220, total FFS payments from the MedPAR grew by 1.0 percent between 2008 and 2009. We use MedPAR data in calculating payments per case—a 1 percent growth in payments, combined with 1.5 percent growth in cases yields a decline in payments per case.

* The numbers of unique patients per 10,000 FFS beneficiaries are different than reported in the IRF chapter in the March 2010 report due to a change in the methodology for calculating unique beneficiaries. The trends in IRF volume described in the March 2010 report—that volume declined after 2004 and stabilized in 2008—are still consistent with the revised number of unique beneficiaries.

Source: MedPAC analysis of MedPAR data from CMS and data on aggregate Medicare spending for IRF services from the CMS Office of the Actuary.

distribution of IRFs. In 2009, the five states with the largest number of IRFs were (in descending order) Texas, California, Pennsylvania, New York, and Ohio—all states among the largest in general and in the Medicare population. The seven locations with the fewest IRFs (in ascending order) were Hawaii, Maryland, Vermont, Delaware, Alaska, Wyoming, and the District of Columbia. IRFs are not the sole provider of rehabilitation services in communities; skilled nursing facilities (SNFs), home health agencies, comprehensive outpatient rehabilitation facilities, and independent therapy providers also furnish rehabilitation services. Given the number and distribution of these other types of rehabilitation therapy providers, it is unlikely that many areas exist where IRFs are the only rehabilitation therapy provider available to Medicare beneficiaries.

There were approximately 360,000 Medicare fee-for-service (FFS) cases in IRFs in 2009 (Table 9-1). Relatively few Medicare beneficiaries use IRF services because IRF patients must be able to tolerate and benefit from intensive rehabilitation therapy, which typically consists of three hours of therapy per day for at least five days

per week. Nevertheless, Medicare is the principal payer for IRF services, accounting for about 60 percent of total IRF discharges in 2009. In 2009, almost all IRF patients (95.2 percent) were admitted to an IRF from an acute care hospital. A small percentage of patients, 2.5 percent, were admitted from a community setting, and the rest were admitted from another health care facility, such as a SNF or another rehabilitation provider. Patients admitted to an IRF directly from the community must pay the Part A inpatient hospital deductible, which is \$1,132 in 2011. With respect to patient demographics, most IRF patients in the first 6 months of 2010 were white and female (see text box on pp. 218–219).

Before January 2002, IRFs were paid under the Tax Equity and Fiscal Responsibility Act of 1982, on the basis of their average costs per discharge, up to an annually adjusted facility-specific limit. Pursuant to the Balanced Budget Act of 1997, IRFs began to be paid in 2002 under a prospective payment system (PPS) based on per discharge rates that vary according to rehabilitation needs, area

wages, and certain facility characteristics. As of 2004, all IRFs are paid under the IRF PPS.

Among other classification criteria, IRFs are required to meet a “compliance threshold,” which mandates that IRFs must serve a certain proportion of patients with specific diagnoses that CMS has identified as typically requiring intensive inpatient rehabilitation. The intent of the compliance threshold is to distinguish IRFs from acute care hospitals. From 1984 through 2004, the compliance threshold required that 75 percent of an IRF’s cases have 1 of 10 diagnoses. In 2002, CMS suspended enforcement of the rule due to inconsistent enforcement patterns among Medicare’s fiscal intermediaries. In 2004, CMS revamped the compliance threshold policy and enforcement, first by increasing the number of conditions that count toward the threshold to 13 (by redefining the arthritis conditions that counted);¹ second, by clarifying that only a subset of patients with major joint replacement—a condition that was commonly treated in IRFs—would count toward the compliance threshold; and third, by rigorously and consistently enforcing IRFs’ compliance with the threshold. The combination of not allowing most major joint replacement patients to count toward the threshold and renewed enforcement resulted in a substantial decline in the volume of Medicare patients treated in IRFs after 2004. As volume declined, occupancy rates and the number of rehabilitation beds fell as well. Case mix increased, however, as the IRF patient population shifted from less severe hip and knee patients to more severe patients who counted toward the threshold. Growth in cost per case increased as well—a function of greater patient severity and IRFs’ fixed costs being spread across fewer patients. The compliance threshold, originally set at 75 percent, was permanently capped at 60 percent in 2007 by the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA). The industry supported capping the threshold at 60 percent and since then has begun to stabilize in its response to the compliance threshold. In addition, IRFs are largely meeting the compliance threshold criteria.

Aggregate expenditures on IRF services in the Medicare FFS program grew after implementation of the PPS in 2002. In 2002, these expenditures totaled nearly \$5.7 billion, and this figure grew at an annual rate of 6.7 percent to about \$6.4 billion in 2004 (Table 9-1). Between 2005 and 2008, however, aggregate FFS expenditures for IRFs fell as more beneficiaries enrolled in Medicare Advantage plans and as facilities adjusted to meet the compliance

threshold that CMS reinstated in 2004. FFS expenditures also fell when CMS reduced IRF payments by 1.9 percent in 2006 and by 2.6 percent in 2007 to adjust for changes in IRF coding practices that CMS analyses determined did not reflect real changes in IRF patients’ acuity. In 2009, aggregate FFS expenditures for IRF services increased to \$6.07 billion, likely due to a 1.5 percent increase in volume from 2008 and a 2.3 percent increase in case-mix severity.

To qualify as an IRF for Medicare payment, facilities must first meet the Medicare conditions of participation for acute care hospitals. They must also:

- have a preadmission screening process to determine that each prospective patient is likely to benefit significantly from an intensive inpatient rehabilitation program;
- ensure that the patient receives close medical supervision and furnish—through qualified personnel—rehabilitation nursing, physical therapy and occupational therapy, and, as needed, speech–language pathology, social services, psychological (including neuropsychological) services, and orthotic and prosthetic services;
- have a medical director of rehabilitation, with training or experience in rehabilitating patients, who provides services in the facility on a full-time basis for freestanding facilities or at least 20 hours per week for hospital-based rehabilitation units;
- use a coordinated interdisciplinary team approach led by a rehabilitation physician that includes a rehabilitation nurse, a social worker or case manager, and a licensed therapist from each therapy discipline involved in treating the patient;
- meet the compliance threshold, which specifies that no fewer than 60 percent of all patients admitted to the IRF must have at least 1 of 13 conditions, specified by CMS, as a primary diagnosis or comorbidity;² and
- initiate therapy within 36 hours from midnight of the day of admission for all patients, including those admitted over the weekend.

Separate from these criteria, Medicare has additional coverage criteria that govern whether IRF services are covered for an individual Medicare beneficiary based on the patient’s medical and rehabilitation needs.³

**TABLE
9-2**

Supply of IRFs remains stable in 2009

Type of IRF	TEFRA		PPS			Average annual percent change		
	2001	2002	2005	2008	2009	2002-2005	2005-2008	2008-2009
All IRFs	1,144	1,181	1,235	1,202	1,196	1.5%	-0.9%	-0.5%
Urban	986	1,004	1,027	1,001	992	0.8	-0.9	-0.9
Rural	158	177	208	201	204	5.5	-1.1	1.5
Freestanding	212	214	217	221	225	0.5	0.6	1.8
Hospital based	932	967	1,018	981	971	1.7	-1.2	-1.0
Nonprofit	724	751	768	738	732	0.7	-1.3	-0.8
For profit	270	274	305	291	295	3.6	-1.6	1.4
Government	150	156	162	173	169	1.3	2.2	-2.3

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). For all years, the rural-urban breakdown is by Core-Based Statistical Area definition.

Source: MedPAC analysis of 2009 Provider of Services files from CMS.

Are Medicare payments adequate in 2011?

To address whether payments for fiscal year 2011 are adequate to cover the costs that efficient providers incur and how much payments should change in fiscal year 2012, we examine several indicators of payment adequacy. Specifically, we assess beneficiaries’ access to care by examining the supply and capacity of IRF providers and changes over time in the volume of services provided, quality of care, provider access to capital, and the aggregate relationship between Medicare’s payments and IRF providers’ costs. Overall, our analysis this year found that the Medicare payment adequacy indicators for IRFs are relatively positive.

Beneficiaries’ access to care: IRF supply and volume are stable

We have no direct indicator of beneficiaries’ access to care because there are no surveys specific to this population. However, our analyses of facility supply, occupancy rates, total number of IRF beds, and volume of services suggest that beneficiaries’ access to IRF care is sufficient.

Capacity and supply: Number of IRFs, occupancy rates, and number of rehabilitation beds are stable

The supply of IRFs has increased slightly since the beginning of the PPS in 2002 (Table 9-2). The number of IRFs grew by an annual average rate of 1.5 percent between 2002 and 2005 and peaked at 1,235 facilities in 2005. The supply of IRFs has been declining since 2005 and decreased by 6 facilities between 2008 and 2009—the net result of a loss of 10 hospital-based units and an increase of 4 freestanding facilities. While changes in the number of IRFs vary by category, with some increasing and some decreasing, the overall picture suggests that the supply of IRFs has stabilized under the PPS.

Occupancy rates provide another view of IRFs’ capacity to serve patients, and they indicate that capacity is adequate to handle current demand and can likely accommodate future increases (Table 9-3). Occupancy rates fell from 2002 through 2007 and the decline accelerated in 2004 due to renewed enforcement of the compliance threshold. In 2008, overall occupancy rates began to increase and continued to increase in 2009 by almost 1 percent. In 2009, occupancy rates were higher for freestanding IRFs (67.3 percent) than for hospital-based IRFs (60.2 percent)

**TABLE
9-3****IRF occupancy rates remain stable in 2009****Percentage point change**

Occupancy rates	2002	2004	2006	2008	2009	2002-2004	2004-2008	2008-2009
All IRFs	68.7%	67.8%	61.9%	62.2%	62.8%	-0.9%	-5.7%	0.7%
Hospital based	65.4	65.7	60.4	59.9	60.2	0.3	-5.8	0.3
Freestanding	74.3	71.9	64.7	66.1	67.3	-2.5	-5.7	1.2
Urban	69.6	69.0	63.1	63.5	64.0	-0.6	-5.5	0.5
Rural	58.5	56.3	50.6	49.4	50.9	-2.3	-6.9	1.6
Number of beds								
1 to 10	54.3	55.2	49.5	52.0	49.8	0.9	-3.2	-2.2
11 to 21	63.8	63.2	58.8	57.5	57.6	-0.7	-5.7	0.1
22 to 59	67.0	68.1	61.5	61.3	62.5	1.1	-6.8	1.2
60 or more	74.0	71.1	65.4	66.8	67.3	-2.9	-4.3	0.4

Note: IRF (inpatient rehabilitation facility). Occupancy rate calculated based on total patient days divided by bed days available during the hospitals' cost reporting period.

Source: MedPAC analysis of Medicare hospital cost report data from CMS.

and higher for IRFs in urban areas than in rural areas (64.0 percent and 50.9 percent, respectively). Occupancy rates in most states ranged from 50 percent to 80 percent.

The total number of rehabilitation beds nationwide is another measure of IRF capacity. After increasing between 2002 and 2003, the number of IRF beds declined after 2004 as the industry adjusted to a decrease in cases due

to renewed enforcement of the compliance threshold (Table 9-4). Between 2004 and 2008, the number of beds declined by an average of 1.1 percent each year. In 2009, the overall number of IRF beds decreased again but by a smaller amount (0.3 percent), as a 2.6 percent increase in the number of beds in freestanding facilities was offset by a 2.0 percent decrease in the number of hospital-based IRF beds.

**TABLE
9-4****Number of IRF beds stabilizes****Average annual percent change**

Type of bed	2002	2004	2006	2008	2009	2002-2004	2004-2008	2008-2009
All IRFs	36,582	37,495	36,718	35,879	35,757	1.2%	-1.1%	-0.3%
Hospital based	23,075	23,844	23,858	22,787	22,325	1.7	-1.1	-2.0
Freestanding	13,507	13,650	12,861	13,092	13,432	0.5	-1.0	2.6

Note: IRF (inpatient rehabilitation facility). Counts exclude data from Maryland, non-U.S. hospitals, and outliers. Number of beds is calculated by taking the total number of available bed days for all patients (not specific to Medicare) divided by the total number of days in the cost reporting period.

Source: MedPAC analysis of hospital cost report data from CMS.

**TABLE
9-5****Compliance rate of Medicare IRF cases levels off after 2007**

	2004	2005	2006	2007	2008	2009	2010
Estimated compliance rate of Medicare IRF cases	45.2%	55.3%	60.1%	61.8%	61.3%	62.7%	61.5%

Note: IRF (inpatient rehabilitation facility). The data for 2010 are limited to discharges that occurred between January and October 2010. The compliance rate is the aggregate percent of IRF cases that fall into 1 of 13 CMS specified diagnoses. As of July 2007, 60 percent of a facility's cases must fall into one of these diagnoses for the facility to be paid as an IRF.

Source: MedPAC analysis of 2004 to 2010 data from eRehabData®.

Volume of services: Volume of FFS patients in IRFs remained stable in 2009

The volume of Medicare FFS IRF patients remained stable in 2009 (Table 9-1, p. 206). We measure volume as the number of FFS cases and the number of FFS IRF patients per 10,000 FFS beneficiaries. The latter measure removes the effect of increased enrollment in Medicare Advantage and allows us to examine the prevalence of IRF use among Medicare FFS enrollees. Both the number of cases and the number of unique patients per 10,000 FFS beneficiaries grew between 2002 and 2004, with the number of cases averaging an annual increase of 6.5 percent. However, volume declined substantially after 2004 as providers adjusted to renewed enforcement of the compliance threshold. From 2004 through 2008, the number of cases declined by an average of 6 percent each year; during that same period, the number of unique FFS patients per 10,000 FFS beneficiaries declined by an annual average of 5.2 percent. In 2008, the volume decline began to level off, coinciding with actions taken by the Congress in late 2007 to permanently cap the compliance threshold at 60 percent. In 2009, volume remained relatively stable, with the number of cases and unique patients per 10,000 FFS beneficiaries increasing by 1.5 percent. The number of beneficiaries with more than one IRF stay in a year also increased between 2008 and 2009. In 2008, approximately 28,700 FFS patients had more than one IRF stay and those patients accounted for 61,000 IRF cases. In 2009, those figures increased to about 30,100 FFS patients with more than one IRF stay, accounting for 64,300 cases.

The mix of the types of patients treated by IRFs has changed since 2004, as IRFs admitted a higher percentage of patients with diagnoses that met the revised compliance threshold. The percentage of IRF cases with 1 of the 13 specified conditions has increased over

time, according to our analysis of proprietary data for a sample of IRFs (Table 9-5).⁴ In the first three years of renewed enforcement of the revised compliance threshold (2004–2006), the aggregate percentage of Medicare cases meeting the threshold increased rapidly from 45.2 percent to 60.1 percent. However, when MMSEA capped the compliance threshold permanently at 60 percent in 2007, the rate of increase in the compliance rate began to level off and the rate remained between 61 percent and 63 percent from 2007 through 2010.

The average case mix increased in severity both for IRF patients who met the compliance threshold and for those who did not. However, the cases that did not count toward the compliance threshold (noncompliant cases) were less complex than those that did (compliant cases), according to our analysis of proprietary data from eRehabData.com for a sample of IRFs. In that analysis, all of the cases treated by IRFs between 2004 and 2010 were measured by the IRF PPS relative payment weights. In 2004, the average relative payment weight for compliant cases was about 1.28, compared with about 0.90 for noncompliant cases. In 2010, the average relative payment weight for compliant cases was 1.39, compared with 1.09 for noncompliant cases.

As IRFs have adjusted their patient admission patterns to meet the revised compliance threshold, the average case-mix severity of the IRF patient population has increased over time. From the first half of 2007 to the first half of 2008, case-mix severity of Medicare FFS patients increased by 1.9 percent; from the first half of 2008 to the first half of 2009, it increased by 2.3 percent.⁵ From 2004 through 2008, as the average case-mix severity of IRF patients increased, average length of stay increased gradually (Table 9-1). In 2009, average length of stay declined slightly even though patient severity still

**TABLE
9-6**

IRF patient mix has changed, 2004–2010

Type of case	Percent of IRF Medicare FFS cases				Percentage point change, 2004–2010
	2004	2006	2008	2010*	
Stroke	16.6%	20.3%	20.4%	20.5%	3.9
Fracture of the lower extremity	13.1	16.1	16.0	14.4	1.3
Major joint replacement of the lower extremity	24.0	17.8	13.1	11.2	-12.8
Debility	6.1	6.2	9.1	9.9	3.8
Neurological disorders	5.2	7.0	8.0	9.7	4.5
Brain injury	3.9	6.0	7.0	7.3	3.4
Other orthopedic conditions	5.1	5.2	6.0	6.5	1.4
Cardiac conditions	5.3	4.0	4.6	5.0	-0.3
Spinal cord injury	4.2	4.6	4.3	4.3	0.1
Other	16.4	12.8	11.3	11.3	-5.1

Note: IRF (inpatient rehabilitation facility), FFS (fee-for-service). "Other" includes conditions such as amputations, major multiple trauma, and pain syndrome. Numbers may not sum to 100 percent due to rounding.
*Data are for the first six months of 2010.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS for 2004–2009, and January 1 through June 30, 2010.

increased by 2.3 percent. The slight decline in average length of stay in 2009 may reflect IRFs' increasing experience with managing their current patient mix. In 2010, case-mix weights increased by 0.4 percent, while the compliance rate decreased between 2009 and 2010 from 62.7 percent to 61.5 percent. This decline occurs because the 2010 case-mix weight increase was driven by the severity of the noncompliant cases. Between those two years, the relative payment weight of noncompliant cases increased from 1.07 to 1.09, while the relative payment weight of compliant cases remained the same.⁶

The change in case mix over time is also reflected in the shifting pattern of diagnoses upon admission among IRF FFS cases since 2004 (Table 9-6). The share of major joint replacements of the lower extremity fell by 12.8 percentage points between 2004 and the first half of 2010, consistent with the more limited definition of threshold compliant joint replacement services adopted by CMS in 2004. During the same period, the percentage of IRF patients with conditions included in the compliance threshold—such as stroke, brain injury, and neurological disorders—increased. Between 2009 and the first half of 2010, the share of stroke and brain injury cases remained the same, while the share of neurological disorder cases increased by 0.7 percentage point. The share of debility

cases also increased over time, growing by 3.8 percentage points since 2004. The growth in debility cases is more surprising, because debility is not among the 13 conditions included in the compliance threshold.

Hospital-based and freestanding IRFs have relatively similar patient populations, according to our analysis of Medicare cost report data. Both hospital-based and freestanding IRFs decreased their share of lower extremity joint replacement patients in response to the compliance threshold and increased their share of stroke patients, although hospital-based IRFs treated a larger share of stroke patients in 2009 (21.6 percent and 16.5 percent, respectively). In 2009, the top five conditions were the same for hospital-based and freestanding IRFs. These conditions—stroke, neurological disorders, fracture of the lower extremity, major joint replacement of the lower extremity, and miscellaneous conditions, which can include debility—constitute 63 percent of all patients in freestanding facilities and close to 67 percent of all patients in hospital-based facilities. Between 2004 and 2009, freestanding IRFs increased their share of patients with neurological disorders by 6.4 percentage points compared with an increase of 1.7 percentage points among hospital-based IRFs.

**TABLE
9-7**

Share of hospital discharges to IRFs continues to decline for hip and knee replacements but remains stable for stroke

Condition	Discharge destination	Percent of hospital discharges						Percentage point change in share of hospital discharges	
		2004	2005	2006	2007	2008	2009	2004-2008	2008-2009
Major joint replacement/hip and knee replacement	IRF	28%	24%	20%	16%	14%	13%	-14%	-1%
	SNF/swing bed	33	34	35	36	36	37	3	1
	Home health	21	25	27	29	30	31	9	1
	All other settings	18	18	18	19	19	18	1	-1
Stroke	IRF	18	18	19	19	19	19	1	0
	SNF/swing bed	27	26	26	26	25	25	-2	0
	Home health	11	11	12	12	12	12	1	0
	All other settings	45	44	44	44	44	44	-1	0

Note: IRF (inpatient rehabilitation facility), SNF (skilled nursing facility). 'All other settings' include outpatient care, other inpatient facilities, and home. Discharge destination totals for each condition may not equal 100 percent due to rounding.

Source: MedPAC analysis of 2004 through 2009 hospital inpatient Medicare claims data from CMS.

The decline in IRF FFS volume coinciding with renewed enforcement of the compliance threshold has raised questions about the impact of the compliance threshold on beneficiaries' access to care. If patients who need intensive rehabilitation services are able to obtain appropriate care in other settings, the reduction in IRF patient volume over the last few years may not constitute an access problem. Because we cannot identify beneficiaries who would have received care in an IRF if not for the compliance threshold, we analyzed changes in post-hospital discharge destinations for patients likely to need rehabilitation from 2004 through 2009. We found that among stroke cases, the share of hospital patients discharged to IRFs and other settings remained largely unchanged (Table 9-7). In contrast, for hip and knee replacement cases, a condition for which CMS has limited the types of cases that count toward the compliance threshold, the relative share of hospital patients discharged to IRFs declined by more than half between 2004 and 2009. Over the same period, however, the share of patients with hip and knee replacements discharged to SNFs and home health agencies increased, filling in for the drop in discharges going to IRFs and suggesting that these beneficiaries were able to obtain rehabilitation care in other settings. CMS also recently addressed the impact of the compliance threshold on beneficiaries' access to care in a report to the Congress mandated by MMSEA on the classification

criteria for IRFs (Gage et al. 2010). The report, prepared for CMS by RTI, analyzed IRF patient mix and compliance with the compliance threshold. The report notes that these data do not indicate whether patients were not admitted to IRFs because of the compliance threshold and states that more data are needed about the use of alternative sites of IRF care to determine whether the compliance threshold limits access.

It is difficult to assess whether the rehabilitation care that patients receive is comparable across different post-acute settings in terms of quality, outcomes, and costliness. The RTI report for CMS also analyzed peer-reviewed research on the effectiveness of IRFs compared with other post-acute care settings and concluded from the studies reviewed that:

- Generally, stroke patients treated in IRFs have greater improvement and shorter stays than stroke patients treated in SNFs.
- Findings comparing outcomes for lower extremity joint replacement patients and hip fracture patients in IRFs and SNFs are not consistent across studies.
- Research comparing outcomes in IRFs with outcomes in other post-acute care settings is limited because the studies do not adequately control for selection bias.

**TABLE
9-8**

IRF patients' functional gain continues to increase

	2004	2006	2008	2009	2010
All IRF patients					
FIM™ at admission	68.0	63.6	61.2	60.0	59.8
FIM™ at discharge	90.4	87.1	85.5	84.8	85.5
FIM™ gain	22.4	23.5	24.2	24.8	25.7
IRF patients discharged home					
FIM™ at admission	71.9	68.0	65.7	64.6	64.1
FIM™ at discharge	97.1	94.9	93.8	93.3	93.5
FIM™ gain	25.3	26.9	28.1	28.7	29.4

Note: IRF (inpatient rehabilitation facility), FIM™ (Functional Independence Measure™). FIM™ scores measure a patient's level of physical and cognitive functioning and range from 18 to 126, with a higher score indicating more functional independence. FIM™ gain may not equal FIM™ at discharge minus FIM™ at admission due to rounding. Data are for January 1 through June 30 of each year.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS.

- Studies comparing per patient Medicare costs for IRF care with costs for other post-acute care are limited because they rely on setting-specific assessment forms that have different measures of functional impairment and severity.
- Standardized data from the Continuity Assessment Record and Evaluation (CARE) tool (the uniform post-acute care assessment tool being tested through the Medicare Post-Acute Care Payment Reform demonstration) can help CMS compare outcomes for rehabilitation care across settings. The final report on the demonstration is due in July 2011 (Gage et al. 2010).

Quality of care: Indicators show improvement, but case-mix changes hinder drawing inferences about quality trends

Our indicators of quality of care provided by IRFs show some improvement from 2004 through 2010, although changes in IRF patient mix over the same time period make it difficult to determine whether the observed trend represents a true improvement in quality. To assess quality, we use a measure commonly tracked by the IRF industry: the difference between admission and discharge scores for the Functional Independence Measure™ (FIM™), which is incorporated in the IRF–Patient Assessment Instrument (IRF–PAI). The 18-item FIM measures the level of disability in physical and cognitive

functioning and the burden of care for a patient's caregivers (Deutsch et al. 2005). The total FIM score can range from 18 to 126, with a higher number meaning more functional independence.⁷

To measure quality improvement, we use the average FIM score at discharge minus the average FIM score at admission (commonly referred to as FIM gain). A larger number indicates more gain in functional independence between admission and discharge. We report this measure in two ways: we compare differences for all FFS Medicare patients treated in an IRF and for a subset of Medicare patients who were discharged home from an IRF. Between 2004 and 2010, FIM gain between IRF admission and discharge increased for all Medicare FFS patients and for the subset of patients who were discharged home (Table 9-8). Between 2004 and 2010, FIM gain increased 3.3 points for all FFS patients, from 22.4 to 25.7; among FFS patients discharged home, FIM gain increased 4.1 points, from 25.3 to 29.4.

The increases in FIM gain do not take into account underlying changes in patient case mix. For these FIM gains to accurately measure IRF quality over time, the functional status of patients at admission must be similar throughout the comparison period. In recent years, patients' functional scores at admission have been lower than those in earlier years, reinforcing our observation that IRF patient severity has increased over time. Patients

with a lower functional score at admission, by definition, have more potential to improve their FIM score over the course of their IRF stay. Consequently, it is unclear whether the higher FIM gain we observe over time is due to an improvement in quality or due to IRFs admitting a more impaired group of patients with more potential for improvement. We are analyzing risk-adjusted functional gain and other potential quality measures, which we anticipate will help us measure trends in IRF quality more accurately in the future.

The Patient Protection and Affordable Care Act of 2010 (PPACA) requires IRFs to submit data on quality measures beginning in fiscal year (FY) 2014 or receive a penalty of 2 percentage points off their payment update. By FY 2013, the Secretary of Health and Human Services must publish the quality measures that IRFs will be required to submit. IRFs currently are not required to report any quality measures, but they are required to submit a patient assessment instrument, the IRF-PAI, for every FFS and Medicare Advantage patient. There is a quality section on the IRF-PAI, but it is optional and IRFs are not required to complete that section to receive payment from Medicare. In 2005, RTI published a report to CMS on a project analyzing the development of quality indicators for IRFs. The technical expert panel created for this project suggested that “change in functional status” and “rate of discharge to the community” should be used as two main IRF outcome measures. RTI pilot-tested a revised IRF-PAI with additional data elements to assess which IRF-PAI elements should be used in risk-adjustment models for these two outcome measures. The resulting report recommends a number of revisions to the IRF-PAI, such as including a premorbid FIM score for each FIM item, retaining two of the three existing pain measurement items and adding a new pain item, and replacing the current depression measurement item with the Yale depression screen. To date, these changes have not been implemented.

There are a number of important issues to resolve in establishing the IRF pay-for-reporting system: (1) which measures—process measures, outcome measures, or a combination of both—should be included in the pay-for-reporting system and how those measures should be defined; (2) how the measures should be risk-adjusted to adequately account for differences in patient characteristics; and (3) which data collection instrument should be used to obtain and report the data used to calculate the quality measures. In November 2010, the Commission convened a technical panel of

IRF researchers, clinicians, medical directors, and other stakeholders to discuss general guidance for CMS on selecting which measures to include, the pros and cons of including certain measures under the IRF pay-for-reporting system, considerations to take into account when risk-adjusting quality measures, and how the quality data can be collected. Following is a summary of the main points from the panel discussion. Overall, participants agreed that process and outcome measures are both important for analyzing IRF quality of care. Participants strongly believed that risk adjustment is necessary. They also largely agreed that the IRF-PAI is the best tool for CMS to use to collect the quality data.

General guidance

Panelists offered a number of general suggestions for CMS regarding the selection of quality measures. Many panelists were concerned about the unintended effects of the selected quality measures for the pay-for-reporting system (and for a possible pay-for-performance system in the future), and they cautioned CMS to consider the indirect consequences of the performance measures that are selected. Participants were largely concerned that access to IRF care could be limited if facilities changed their admission patterns to select patients they expected would perform well on the performance measures. Some panelists suggested that the concern about access to care could be lessened by developing condition-specific quality measures or through risk adjustment that accounted for patients’ status at admission. Panelists also noted that the concern about unintended consequences and the importance of risk adjustment would be greater under a pay-for-performance system than under a pay-for-reporting system.

With respect to the selection of quality measures, participants advised that the quality measures be malleable and able to change as the rehabilitation and medical care provided in IRFs evolve. Some panelists suggested that the measures reflect a patient-centric focus or that CMS select measures that apply to other settings that provide rehabilitation. Participants also emphasized the importance of clearly defining the quality measures and how the quality data should be collected and reported to ensure consistency across facilities in the data reporting. Panelists stated that they would like representatives from IRFs to have input and ongoing communication with CMS on the selection of data elements to ensure that the data elements that are collected are meaningful measures for facilities. One participant recommended collecting data on fewer

quality measures that are the most informative, rather than collecting data on many measures that may not be as useful in measuring the overall quality of care in IRFs.

Process measures

Participants discussed a number of potential process measures during the meeting. The discussion largely focused on how process measures could be defined and considerations to take into account when defining them.

Medication management Panelists discussed capturing standard practices around medication management and medication reconciliation through a process measure. Panelists suggested broad, conceptual process measures, such as reviewing a patient's medications upon admission, conducting medication reconciliation, appropriate use and monitoring of medications, and appropriate prescribing of medications during the IRF stay. Some panelists also noted that medication management can be measured with a patient satisfaction survey, such as by asking patients whether their medications were explained to them in a way they could understand.

Another suggestion was to focus on the management of insulin for diabetics. Panelists stated that insulin management is important for those patients to be able to benefit from rehabilitation, and it could be assessed by measuring blood sugar levels for diabetic patients or by measuring whether and how often insulin was provided to them. Panelists also noted that data collection on medication management could be used for risk adjustment. For example, adequate pain management is necessary for some patients to be able to complete their rehabilitation exercises.

Pain management Participants discussed the common practice of regularly measuring patients' levels of pain during rehabilitation so that the pain does not interfere with their ability to complete prescribed rehabilitation exercises. In addition, exercises will be changed as needed so that they do not cause additional pain. Panelists noted that collecting detailed data on pain management could be burdensome to IRF staff; however, they suggested that a realistic process measure could be whether pain assessments are being conducted. A limitation of this measure is that it does not capture how the facilities use the information from the pain assessments. Panelists preferred measuring pain management through the measure of pain assessments rather than through the presence of pain, because presence of pain may not apply

to all patients and patients could have pain for many reasons.

Falls Panelists discussed the nature of falls in the IRF setting. Falling is part of the rehabilitation process and for some patients, teaching them how to fall is part of their therapy. Panelists discussed a number of potential process measures for falls. One suggestion was to measure only falls that resulted in injury. It was noted that this measure could encourage IRFs to restrain patients' activities during exercise in order to minimize their risk of falling; however, this incentive could be offset by also including gain in functional status as a measure, since trying to achieve functional gain encourages rehabilitation activity. Another suggestion was to measure facilities' procedural responses to falls. For example, in one facility a root cause analysis is conducted after every fall and a plan of care is developed for the patient. In another facility, staff conduct a postfall huddle to analyze the factors that contributed to the fall.

Treatment and measurement of cognitive functioning and depression Panelists considered whether a measure of cognitive function should be included as a quality measure. In general, panelists expressed concerns about the ability to accurately measure cognitive functioning and the usefulness of this type of measure. Panelists reported that there is a lack of tests that can accurately measure cognitive functioning and that the FIM instrument is not a reliable tool for measuring cognitive status. In addition, cognitive status is not likely an area that IRFs can improve during the two weeks that patients typically spend in an IRF. One suggestion was to try to assess cognitive status by measuring a patient's ability to participate and engage in the rehabilitation activities.

Panelists also considered including measures of depression. One panelist noted that many patients are profoundly depressed given their clinical condition, particularly patients who have lost some of their functional capacity; however, these patients' feelings may be expected reactions to their situation rather than depression. Other participants stated that many IRFs are already screening for depression and initiating treatment as part of regular clinical practice. Panelists disagreed about whether depression treatment during the IRF stay can be effective given the relatively short length of time that patients typically stay in an IRF. One suggestion for a process measure for depression is to determine whether patients were screened for depression and whether treatment strategies were identified or treatment was initiated.

Pressure ulcers Participants also discussed including a process measure for pressure ulcers. Some panelists noted that there is value in including pressure ulcers as a process measure because IRF staff are generally aware of them and know how to treat them, and pressure ulcers can be used as a proxy for adequate nurse staffing. However, panelists cautioned that developing an accurate measure for pressure ulcers is difficult. For example, some facilities track whether new pressure ulcers develop during the IRF stay or whether existing pressure ulcers from the acute care stay worsened during the IRF stay. However, pressure ulcers can merge or split as they heal, complicating the ability to assess the number of new ulcers and how well they heal.

Patient satisfaction Participants noted that measuring patient satisfaction would be consistent with a focus on patient-centered care. Participants discussed the possibility of measuring patient satisfaction through satisfaction with the discharge process, satisfaction with the plan of care, and patients' knowledge of how to manage their medications at discharge. Panelists stated that patient satisfaction measures also need to be risk-adjusted.

Care transitions and discharge planning Some participants emphasized the importance of giving patients the information they need to be able to manage their care after discharge. In one participant's facility, patients are given a "passport" that includes information on how they can manage their care. Ideally, this information would be tailored to the setting to which the patient is being discharged and would include information such as a medication list, a list of resources and contact information, and any precautions the patient should be taking. One panel member suggested that the impact of the discharge planning process could be measured through patient satisfaction measures or through an outcome measure, such as the rate of acute care readmissions for patients who were initially discharged to the community.

Outcome measures

In general, participants were supportive of including outcome measures to assess quality of care in IRFs. However, there was confusion about how outcome measures would fit into an IRF pay-for-reporting system if measures such as change in functional status, discharge to the community, and hospital readmissions can be calculated from data that are currently available on the IRF-PAI or Medicare claims. Despite this concern,

participants discussed the value of and considerations with certain outcome measures.

Change in functional status Participants recognized the importance of measuring change in a patient's functional status; however, they noted a number of limitations with the FIM gain measure. First, FIM scores may not be scored consistently across facilities. Another panelist noted that the FIM instrument is not sensitive to functional changes that clinicians see or to major improvements in quality of life. In addition, the FIM instrument consists of two scales—a motor scale and a cognitive scale—and a participant noted that research has demonstrated that the two scales are not equivalent. Further, panelists expressed concern about the reliability of the cognitive items in the FIM. Rather than using the entire FIM scale, some researchers are moving toward measuring FIM gain either separately for the motor and cognitive scores or on the questions that focus on patients' self-care and mobility. Last, panelists noted that including FIM as a quality measure gives facilities the incentive to score patients with a low FIM score at admission and to closely document changes in function to score a higher FIM score at discharge in order to increase the FIM gain.

Discharge to the community Participants discussed some considerations with the discharge-to-community measure. Panelists noted that whether a patient can be discharged back to the community depends partly on the patient's needs and living situation. For example, some patients may not be able to be discharged home if they need caregiver support but do not have a caregiver at home. Participants also discussed the trade-offs between efficiency and keeping patients in the IRF long enough for them to regain enough function to return to the community. Some facilities may be able to keep patients in the IRF longer in order to increase their functionality to a point where they are able to return home, even though the longer stay requires more of the facilities' resources. On the other hand, facilities need to have enough capacity to accept new patients, and this need could discourage longer stays. Another panel member noted that IRFs may not receive complete information on a patient's status and medications, and this lack of information could affect a facility's ability to successfully discharge to the community.

Hospital readmissions and admissions to nursing facilities Panel members were generally supportive of measuring readmissions to acute care hospitals and admissions to nursing facilities; however, they discussed a number of

considerations with measuring readmissions. Participants mentioned the difficulty in determining whether a readmission back to acute care is due to the care received at the acute care hospital or at the IRF. Participants noted that some readmissions that occur shortly after a patient is admitted to the IRF may be more reflective of the care received in the acute care hospital than in the IRF and cautioned that the reasons for those readmissions should be examined as well. However, other panelists stated that at some point the IRF takes ownership of the patient. Before that point, the acute care hospital could be held responsible for discharging an unstable patient, but it is the IRF's responsibility to review a patient's data before admission to determine whether the patient is stable enough for treatment.

Panelists varied in their opinions on the length of time after admission to an IRF that a readmission to an acute care hospital should be considered the responsibility of the IRF. The average length of stay in an IRF for Medicare patients is 13 days, and some participants thought that readmissions occurring after the first 36 hours of a stay should be considered an IRF's responsibility because therapy must begin within the first 36 hours after admission. Another suggestion was to consider readmissions after the first 48 hours to be the IRFs' responsibility because that time frame would allow therapy staff to begin treatment and to determine whether it was too intense for the patient. Other panelists preferred 72 hours postadmission as the point when readmissions would be considered the IRFs' responsibility. Participants who preferred this time frame noted that underlying conditions that are not immediately noticed could be present in patients and that readmissions within 72 hours most likely reflect an underlying health problem or the acute care hospital's transition plan. Panelists did not discuss at length how long after discharge from an IRF readmissions to an acute care hospital should be considered reflective of the care received at the IRF; however, one participant suggested that acute care readmissions be limited to two weeks postdischarge. This participant argued that readmissions that occur more than two weeks after discharge from an IRF could be related to the nature of a patient's health condition rather than to the care provided at the IRF.

Panelists also discussed including admissions to SNFs after patients were discharged to the community as a measure of whether patients who were initially discharged to the community were able to remain there. Participants

noted that some patients are admitted to the IRF from a SNF or a long-term care facility with the intention of being discharged back to that facility. Panel members also cautioned that it can be difficult to predict which patients will be able to remain in the community. Some participants expressed interest in receiving data from CMS on whether patients are admitted to acute care hospitals, SNFs, or other settings within 90 days after discharge. This information could help IRFs evaluate and improve their discharge process.

Measuring the durability of IRF care through outcome measures Participants discussed the value of including measures that assess the long-term impact of rehabilitation care received in an IRF. One participant noted that it may be difficult to assess this factor for IRFs unless a facility is responsible for the care management of patients after they leave the facility. Other participants noted that there is a precedent for measuring long-term outcomes. Facilities that are accredited by the Commission on Accreditation of Rehabilitation Facilities must collect follow-up data on patients after they have left the IRF. Facilities can select which outcomes to measure and which patients to follow up. In addition, another participant noted that measuring outcomes long after the IRF stay gives facilities an incentive to improve the discharge planning process and to work closely with nursing facilities to place patients back in their communities. Participants did not identify the optimal time frame to measure durability (i.e., 30 days or 90 days postdischarge); however, one participant noted that durability appears to level off six months postdischarge from an IRF.

Risk adjustment

Panelists repeatedly emphasized the importance of risk-adjusting all quality measures. One suggestion was to stratify the quality measures by diagnosis or diagnostic group. Doing so would permit including condition-specific risk adjusters in the model for a given diagnostic group. Examples of possible risk adjusters that participants discussed were comorbidities such as HIV and drug use; cognitive function, which remains an important risk adjuster even though it is difficult to measure; and patients' ability to function independently before the onset of the acute episode that resulted in their admission to the IRF, which is currently not being reported. Participants also noted that the CARE tool that is being pilot-tested by CMS may contain some data elements that CMS could consider using in developing risk adjusters.

Comparison of inpatient rehabilitation facility fee-for-service and Medicare Advantage patients

Beginning in fiscal year 2010, inpatient rehabilitation facilities (IRFs) are required to complete and submit data to CMS from IRF patient assessment instrument forms for Medicare Advantage (MA) patients. We analyzed six months of these data, from January through June 2010, and compared the results for MA patients with those for Medicare fee-for-service (FFS) patients. These data are preliminary and not case-mix adjusted. The use rate of IRFs among the FFS population is more than double the rate for the MA population (Table 9-9), which suggests that the MA population could be receiving rehabilitation services in other settings, such as skilled nursing facilities (SNFs), home health agencies, or outpatient therapy. The use rate could also be affected by the need for rehabilitation services in the MA population. On average, MA patients have longer stays in IRFs and greater severity of illness than FFS IRF patients. MA patients stayed an average of 13.8 days in an IRF compared with 13.1 days for FFS

patients, and the case-mix weight for MA patients on average was 1.34 compared with 1.29 for FFS patients.

Most FFS and MA IRF patients are discharged home. A slightly higher percentage of MA patients are discharged home than FFS patients (72 percent and 68 percent, respectively), and a slightly higher percentage of MA patients than FFS patients are discharged home with home health services (53 percent and 51 percent, respectively). Although the percentages of patients discharged to most other settings were similar for both MA and FFS patients, a higher percentage of FFS patients were discharged to a SNF. Almost 11 percent of FFS patients were discharged to a SNF compared with 8 percent of MA patients. In most regards, the patient demographics of the MA and FFS population are similar; however, a higher percentage of MA patients are African American and Hispanic.

**TABLE
9-9**

Characteristics of Medicare FFS and MA IRF patients, January to June 2010

	Medicare FFS patients	MA patients
Total number of patients	172,462	24,296
Use rate	0.48%	0.22%
Average length of stay	13.1	13.8
Case-mix weight	1.29	1.34
Discharged home	68%	72%
Discharged home with home health	51%	53%
Race		
White	81%	75%
African American	10	13
Hispanic	5	7
Percent female	59%	55%

Note: FFS (fee-for-service), MA (Medicare Advantage), IRF (inpatient rehabilitation facility). Use rate is calculated as the number of FFS or MA patients divided by all FFS or MA patients. Discharge destinations do not total 100 percent. Patients in the discharged home category may also appear in the discharged home with home health category. Not all discharge destinations are represented in the table. Data are for January 1 through June 30, 2010.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS, January–June, 2010. Sources for the denominators for the use rates are the 2010 Trustees report and the June 2010 Medicare Advantage enrollment file from CMS.

(continued next page)

Comparison of inpatient rehabilitation facility fee-for-service and Medicare Advantage patients (cont.)

A higher percentage of MA IRF users than FFS IRF users are stroke, brain injury, or spinal cord patients (Table 9-10). The greatest difference between the two populations is among stroke patients, who account for 31.4 percent of MA patients compared with 20.5 percent of FFS patients. This higher percentage could be driving the higher average case-mix weight for all

MA patients. In addition, MA patients with stroke, debility, neurological conditions, and spinal cord injuries have longer stays than FFS patients with these conditions, and, with the exception of stroke patients, MA patients with these conditions have higher case-mix weights. ■

**TABLE
9-10**

Patient mix of Medicare FFS and MA IRF patients, January to June 2010

Type of case	Medicare FFS IRF patients			MA IRF patients		
	Percent of all FFS patients	ALOS	Case-mix weight	Percent of all MA patients	ALOS	Case-mix weight
Stroke	20.5%	15.7	1.57	31.4%	16.0	1.56
Fracture of the lower extremity	14.4	13.4	1.24	12.4	13.1	1.23
Major joint replacement of the lower extremity	11.2	9.7	0.85	10.4	9.7	0.86
Debility	9.9	11.9	1.21	6.7	12.6	1.24
Neurological disorders	9.7	13.3	1.33	7.6	14.1	1.36
Brain injury/nontraumatic	4.4	13.2	1.41	4.7	13.7	1.39
Brain injury/traumatic	2.8	14.5	1.49	3.6	14.1	1.48
Other orthopedic conditions	6.5	11.9	1.11	4.4	11.8	1.09
Cardiac conditions	5.0	11.2	1.13	3.8	11.1	1.15
Spinal cord/nontraumatic	3.6	14.6	1.41	4.3	16.0	1.48
Spinal cord/traumatic	0.7	19.1	2.07	1.0	19.2	2.17

Note: FFS (fee-for-service), MA (Medicare Advantage), IRF (inpatient rehabilitation facility), ALOS (average length of stay). Not all types of cases are included. Data are for January 1 through June 30, 2010.

Source: MedPAC analysis of Inpatient Rehabilitation Facility–Patient Assessment Instrument data from CMS, January to June 2010.

Data collection

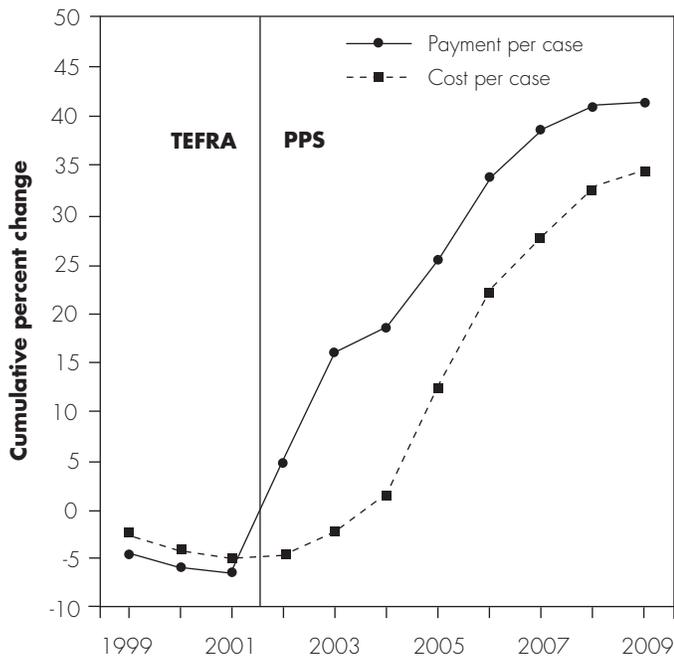
Overall, panel members supported consistency across facilities in the collection of quality data, with minimal burden to providers. Participants in general supported using the IRF–PAI as the data collection instrument for the quality data. Panelists noted that collecting the quality data through the IRF–PAI would lessen the reporting burden on facilities because workflow systems are already in place in facilities to fill out and submit IRF–PAIs. Another participant suggested that adding the quality data to the IRF–PAI could increase the attention facilities give to the

quality data and could enable them to analyze the quality data themselves before receiving any reports from CMS.

In summary, panel members discussed the definitions and considerations for a number of process and outcome measures. Risk adjustment was a main issue, with participants repeatedly mentioning the importance of adequate risk adjustment. The IRF–PAI was suggested as the data collection instrument for quality data, although some participants noted that industry-wide use of the CARE tool could facilitate data collection as well.

FIGURE 9-2

IRFs' payments per case have risen faster than costs, 1999-2009



Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Data are from consistent two-year cohorts of IRFs. Costs are not adjusted for changes in case mix.

Source: MedPAC analysis of Medicare cost report data from CMS.

In general, the Commission supports pay-for-performance systems rather than pay for reporting. The Commission holds that the Medicare program should develop a limited number of quality measures for pay-for-performance systems in each sector that focus on outcomes where possible and patient safety and patient experience where applicable. The panelists raised a number of important issues with respect to quality measures for IRF patients and risk adjustment. Staff will take panel members' discussion into consideration and will continue to explore quality measurement and risk adjustment in the IRF sector in the near future.

Providers' access to capital: IRFs' access to capital appears to be adequate

Eighty percent of IRFs are hospital-based units that have access to capital through their parent institution. As described in Chapter 3 of this report, inpatient hospitals'

access to capital appears adequate, as evidenced by a high level of hospital bond issuances and hospital construction and a steady level of hospital consolidations.

As for freestanding IRFs, an analysis of a major national chain found that the chain continues to experience positive revenue growth and is able to access capital markets. This chain has high overall margins and, although highly leveraged, was able to improve its earnings and access the improved credit markets to refinance some of its debt. Most other freestanding facilities are independent or local chains of only a few providers (for profit or nonprofit). The extent to which these providers have access to capital is less clear.

Medicare payments and providers' costs: Overall, IRFs' payments have grown faster than costs since implementation of the PPS

Overall, payments per case have grown faster than costs per case since implementation of the PPS in 2002, even though costs per case have grown faster than payments since 2004 (Figure 9-2). Costs per case grew rapidly between 2004 and 2006, as case-mix severity increased and the volume of cases declined due to the revisions to and renewed enforcement of the compliance threshold, resulting in fixed costs being spread over a smaller volume of cases. Cost growth slowed after 2006 to an average of 5.1 percent per year as patient volume steadied.

The average Medicare FFS payment per case declined by 0.5 percent between 2008 and 2009, after increasing between 2004 and 2008 (Table 9-1, p. 206). The decline in the average payment per case is due to two policies: a zero payment update in 2009, as required by MMSEA, and CMS's adjustment of the 2009 outlier threshold. In addition to the zero update in 2009, MMSEA also required no update for the second half of 2008; therefore, payments for 2009 in effect were held at 2007 levels. Despite the lack of a payment update, payments for 2009 (not including outlier payments) increased from 2008 by almost 2.0 percent. The increase in payments (not including outlier payments) is likely due to an increase in case-mix severity, which rose by 2.3 percent between 2008 and 2009, and an increase in the total number of FFS cases.

CMS's adjustment of the outlier threshold in 2009 was intended to lower outlier payments and was a result of 2008 outlier payments exceeding the target amount set for outliers. This adjustment decreased total outlier payments in 2009 by almost 20 percent. As a share of total IRF payments between 2008 and 2009, outlier payments

declined from 4.1 percent to 3.2 percent. The increase in case-mix severity and lower outlier payments resulted in an increase in total IRF payments between 2008 and 2009. However, because the number of cases rose faster than total payments, the average payment per case dropped in 2009.

Standardized IRF costs reflect economies of scale

Adjusting IRF costs per discharge for differences in wages, case mix, and outlier payments permits a standardized comparison of costs across different types of IRFs. The mean adjusted cost per discharge for all IRFs in 2009 was almost \$14,800 (Table 9-11). On average, freestanding IRFs had about 21 percent lower adjusted costs per discharge than hospital-based IRFs, and urban IRFs had approximately 16 percent lower costs per discharge than rural IRFs. Average adjusted costs per discharge also decline as the number of beds in a facility increases. In 2009, costs per discharge were lower by \$5,360 (30 percent) for facilities with more than 60 beds than for facilities in the 1- to 10-bed range. The differences in adjusted costs by number of beds suggest that larger facilities have economies of scale that result in lower costs per discharge. The costs by number of beds also explain some of the difference in adjusted costs between freestanding and hospital-based facilities. Almost three-quarters of IRFs with more than 60 beds are freestanding, while 99 percent of IRFs with 1 to 10 beds are hospital based.

We stratified IRFs into quartiles of standardized costs to compare the characteristics of facilities in the bottom, middle two, and top quartiles (Table 9-12, p. 222). In 2009, the mix of hospital-based and freestanding IRFs changed across quartiles, with the bottom quartile (i.e., lowest standardized costs) having the highest percentage of freestanding IRFs and the middle two and top quartiles consisting of nearly all hospital-based facilities. The inverse relationship between costs and number of beds is also apparent in the quartile data. In the bottom cost quartile, the median number of beds was 37 compared with the top cost quartile's median of 18 beds. Occupancy rates also decreased with the higher cost quartiles, with the average occupancy rate for IRFs in the bottom cost quartile at almost 70 percent and the rate in the top quartile at 50 percent. Case mix does not vary much across quartiles, suggesting that it is not case mix but number of beds and occupancy rates that are more indicative of lower costs per discharge. The median Medicare margins reflect the differences in

**TABLE
9-11**

Mean adjusted costs per discharge are lower for freestanding IRFs and larger facilities, 2009

Type of IRF	Mean adjusted cost per discharge
All IRFs	\$14,791
Hospital based	15,406
Freestanding	12,211
Urban	14,345
Rural	17,015
Beds	
1-10	17,592
11-21	15,543
22-59	14,211
60+	12,232

Note: IRF (inpatient rehabilitation facility). Cost per discharge is standardized for the wage index, case mix, and outliers.

Source: MedPAC analysis of 2009 standard analytical file and Medicare cost report data from CMS.

adjusted costs. The median margin for IRFs in the bottom quartile of standardized costs was 23 percent compared with -24.3 percent for IRFs in the top quartile. IRFs in the middle two quartiles had median margins of almost 1 percent.

In each sector, the Commission works to identify efficient providers based on a combination of lower cost and higher quality. Although we cannot identify efficient IRF providers without risk-adjusted quality measures, we can note that economies of scale are a characteristic of lower cost IRF providers. While smaller IRFs may manage costs to the best of their abilities, larger facilities with higher occupancy rates benefit from being able to spread their fixed costs across a larger volume.

IRF Medicare margins declined in 2009 but remain healthy

IRF Medicare margins on average remained substantially positive in 2009. During the first two years of the IRF PPS, margins rose rapidly, reaching 17.7 percent in 2003 with all IRF provider types experiencing solid gains (Table 9-13, p. 223). After this rapid buildup, margins have declined moderately each year but remained at a healthy

**TABLE
9-12****Higher number of beds and occupancy rates are characteristics of IRFs in the bottom quartile of standardized costs, 2009**

Characteristic	Low cost quartile	Middle two quartiles	High cost quartile
Number of IRFs	279	560	279
Hospital based	52.0%	88.6%	93.9%
Freestanding	48.0	11.4	6.1
Urban	93.9%	86.3%	66.7%
Rural	6.1	13.8	33.3
Median:			
Medicare margin	23.0%	0.8%	-24.3%
Number of beds	37	21	18
Occupancy rate	69%	62%	50%
Case-mix index	1.21	1.21	1.19

Note: IRF (inpatient rehabilitation facility). Costs per discharge are standardized for the wage index, case mix, and outliers.

Source: MedPAC analysis of 2009 standard analytical file and Medicare cost report data from CMS.

8.4 percent in 2009. The decline in margins over this period was mostly due to large drops in patient volume and fixed costs being spread over fewer patients. The drop in margins from 2007 to 2009, however, was due to a zero update to the base rates for half of 2008 and for all of 2009 that resulted in Medicare payment rates remaining at 2007 levels.

As in other Medicare sectors, margins vary substantially across providers. Freestanding and for-profit IRFs—which had the highest Medicare margins in 2004 (greater than 20 percent)—continued to exhibit the best financial performance. Although IRF payments were not updated in 2009, freestanding and for-profit IRFs were able to control cost growth and have margins of 20.1 percent and 19.1 percent, respectively. (Freestanding and for-profit IRFs are dominated by one provider chain that accounts for about 50 percent of freestanding and for-profit revenues and 20 percent of revenues for the industry.) In comparison, hospital-based and nonprofit IRFs had lower margins, at 0.5 percent and 2.3 percent, respectively. Because rural facilities receive an 18.4 percent adjustment factor added to their payments, margins in 2009 were close for urban and rural facilities—8.5 percent and 6.6 percent, respectively.

The difference between the 20.1 percent margins for freestanding facilities and the 0.5 percent margins for hospital-based units in 2009 is likely due to volume and the ability to constrain cost growth. Hospital-based units in general have lower occupancy rates than freestanding facilities and also tend to be smaller facilities—almost half of hospital-based IRFs (46 percent) are facilities with 11 to 21 beds, whereas 50 percent of freestanding IRFs are facilities with 60 beds or more. In addition, hospital-based IRFs' cost per case adjusted for case mix and wage index grew by close to 2 percent between 2008 and 2009, while freestanding IRFs were able to decrease adjusted cost per case by 4 percent over the same period.

Our analysis of cost report data from CMS indicates that total margins (all payers) for freestanding IRFs also are healthy and have been since 2002. Total margins peaked in 2002 at 12.3 percent and remained in double digits through 2005. In 2006, total margins dropped to 9.2 percent and dipped again to 7.2 percent in 2008. Total margins for freestanding facilities increased to 7.6 percent in 2009. It should be noted that the total margins reflect the margins for IRF services and for other service lines that freestanding IRF companies may also have.⁸ For example, in 2009, about 23 percent of freestanding IRF companies also had an outpatient unit, close to 12 percent

**TABLE
9-13**

IRFs' Medicare margins vary by type and remain healthy overall

Type of IRF	TEFRA		PPS						
	2001	2002	2003	2004	2005	2006	2007	2008	2009
All IRFs	1.5%	10.9%	17.7%	16.6%	13.3%	12.4%	11.9%	9.6%	8.4%
Urban	1.5	11.3	18.2	16.9	13.5	12.6	12.0	9.8	8.5
Rural	1.1	5.9	12.5	13.9	12.0	10.6	10.2	7.9	6.6
Freestanding	1.5	18.5	22.9	24.7	20.7	17.4	18.5	18.2	20.1
Hospital based	1.5	6.1	14.7	12.1	9.3	9.7	8.1	4.4	0.5
Nonprofit	1.6	6.5	14.5	12.6	10.2	10.6	9.6	5.6	2.3
For profit	1.2	18.7	23.9	24.6	19.8	16.3	16.9	17.0	19.1
Government	N/A	N/A	N/A						
Beds									
1-10	0.0	1.6	3.7	3.4	-2.5	-3.6	-2.6	-4.1	-10.7
11-21	0.9	3.3	11.2	9.6	6.0	7.0	5.3	0.9	-2.4
22-59	1.6	10.1	17.8	16.0	13.3	12.3	11.2	8.7	6.3
60+	1.7	16.4	22.2	22.5	19.0	17.5	18.0	17.2	18.3

Note: IRF (inpatient rehabilitation facility), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system), N/A (not available). Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of Medicare cost report data from CMS.

also operated a SNF, almost 13 percent also offered home health services, and almost 1 percent also offered hospice.

Medicare margins for 2011

To project the aggregate Medicare margin for 2011, we model the policy changes that went into effect in 2010 and 2011. These policies include:

- increasing payment rates by 2.25 percent for FY 2010, the net result of a 2.5 percent market basket update and a 0.25 percent market basket reduction per PPACA (see text box, p. 225); and
- increasing payment rates for FY 2011 by 2.16 percent, the net result of a 2.5 percent market basket update, a 0.25 percent market basket reduction per PPACA, and an estimated 0.09 percent payment decrease due to decreasing outlier payments.⁹

In recent years, the policy that we anticipated to have the most significant impact on projected margins was the phase-in of the compliance threshold. However, with

the threshold now permanently capped at 60 percent, we believe IRFs will no longer need to reduce admissions to remain compliant. Occupancy rates for IRFs started to increase in 2008 to 62.2 percent and continued to increase in 2009 to 62.8 percent. Total patient volume also increased from 356,000 cases in 2008 to 361,000 cases in 2009. Taking account of the recent legislation and other IRF policy changes, we project that aggregate Medicare margins in 2011 will remain close to 2009 margins, declining slightly from 8.4 percent in 2009 to about 8.1 percent in 2011. The projected slight decrease in the margin is largely the result of the PPACA provisions that reduce the market basket update for 2010 and 2011 by 0.25 percent. The margin projection for 2011 assumes that costs will increase by the market basket and does not assume increased cost control efforts by IRFs in response to the market basket reductions or the economy. To the extent that IRFs restrain their cost growth in response to economic pressures, the projected 2011 margin could be higher than we have estimated.

How should Medicare payments change in 2012?

In summary, our indicators of Medicare payment adequacy for IRFs are positive. Supply and capacity are stable and adequate to meet demand. With the compliance threshold permanently set at 60 percent, the decline in volume since 2004 tapered off and volume remained stable in 2009. We have seen an increase in functional gain, which suggests improved quality; however, we cannot draw a definite conclusion without risk adjustment. Access to credit appears adequate for hospital-based and freestanding IRFs. Finally, we project that the 2011 aggregate Medicare margin will be approximately 8.1 percent, down slightly from the 8.4 percent margin in 2009. On the basis of our assessment of the indicators of payment adequacy, we conclude that IRFs should be able to accommodate cost changes in fiscal year 2012 with payments held at 2011 levels.

RECOMMENDATION 9

The Congress should eliminate the update to the payment rates for inpatient rehabilitation facilities in fiscal year 2012.

RATIONALE 9

Our indicators of Medicare payment adequacy are positive. Capacity remains adequate to meet demand. Although IRFs' efforts to meet the compliance threshold since 2004 had a significant impact on IRF volume, this decline was consistent with the underlying reason for the compliance threshold—to direct the most clinically appropriate types of cases to this intensive, costly setting. With the compliance threshold permanently set at 60 percent, the decline in Medicare FFS IRF use tapered off in 2009. Our projected 2011 aggregate Medicare margin is about 8.1 percent, down slightly from an estimated 8.4 percent in 2009. To the extent that IRFs restrain their cost growth in response to fiscal pressure from PPACA's market basket reductions and productivity adjustment or the economic downturn, the projected 2011 margin could be higher than we have estimated. On the basis of these analyses, we believe that IRFs could absorb cost increases and continue to provide care to clinically appropriate Medicare cases with no update to payments in 2012. We will closely monitor our payment update indicators and will be able to reassess our recommendation for the IRF payment update in the next fiscal year.

Spending

- The payment update for IRFs in FY 2012 consists of a forecasted 2.7 percent market basket update for rehabilitation, psychiatric, and long-term care hospitals; a forecasted 1.3 percent productivity adjustment off the market basket update; and a 0.1 percent market basket reduction per PPACA.¹⁰ This recommendation would decrease federal program spending relative to current law by between \$50 million and \$250 million in 2012 and by less than \$1 billion over five years.

Beneficiary and provider

- We do not expect this recommendation to have adverse impacts on Medicare beneficiaries with respect to access to care or out-of-pocket spending. This recommendation may increase the financial pressure on some providers, but overall a minimal effect on providers' willingness and ability to care for Medicare beneficiaries is expected. ■

Inpatient rehabilitation facility provisions in the Patient Protection and Affordable Care Act of 2010

The Patient Protection and Affordable Care Act of 2010 included a number of provisions specific to inpatient rehabilitation facilities (IRFs), including:

- **Quality reporting.** IRFs are required to submit data on quality measures and CMS is currently proposing to start collecting the data in fiscal year 2013. Facilities that do not submit the quality measure data will receive a 2 percentage point penalty off their payment update. By fiscal year 2013, the Secretary of Health and Human Services must publish the quality measures that IRFs will be required to submit. The quality measures must be endorsed by a consensus organization such as the National Quality Forum; however, the Secretary can select unendorsed measures as long as “due consideration” was given to endorsed measures.
- **Productivity adjustment.** IRFs’ payment updates will be reduced by a productivity adjustment starting in fiscal year 2012. The productivity adjustment can result in a negative payment update.
- **Market basket reductions.** IRFs will receive market basket reductions from fiscal years 2010 through 2019. The market basket reductions are as follows: 0.25 percentage point for fiscal years 2010 and 2011; 0.1 percentage point for fiscal years 2012 and 2013; 0.3 percentage point for fiscal year 2014; 0.2 percentage point for fiscal years 2015 and 2016; and 0.75 percentage point for fiscal years 2017, 2018, and 2019.
- **Bundling pilot and continuing care hospital pilot.** During the pilot that tests bundled payments for post-acute care services, the Secretary must separately pilot the continuing care hospital model. A continuing care hospital is an entity that provides medical and rehabilitation services in IRFs, long-term acute care hospitals, and skilled nursing facilities located in a hospital. The bundle applies to the full stay in the continuing care hospital plus 30 days postdischarge. ■

Endnotes

- 1 The 13 conditions are stroke; spinal cord injury; congenital deformity; amputation; major multiple trauma; hip fracture; brain injury; neurological disorders (e.g., multiple sclerosis, Parkinson's disease); burns; three arthritis conditions for which appropriate, aggressive, and sustained outpatient therapy has failed; and hip or knee replacement when bilateral, body mass index ≥ 50 , or age 85 or older. These conditions may count toward an IRF meeting the compliance threshold if they are being actively treated in conjunction with the condition that is the primary cause for admission. For more information on Medicare's IRF payment system, see the Commission's payment basics document at http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_IRF.pdf.
- 2 This rule does not take the place of Medicare's general medical necessity requirements.
- 3 Requirements that must be met for a beneficiary's IRF admission to be considered reasonable and necessary are: (1) The patient requires therapy in at least two disciplines, one of which must be physical or occupational therapy. (2) The patient generally requires and can reasonably be expected to benefit from intensive rehabilitation therapy that most typically consists of three hours of therapy per day at least five days per week. (3) An IRF admission for the purpose of assessing whether a patient is appropriate for IRF care is no longer covered and therapy must begin within 36 hours from midnight of the day of admission. (4) The patient is sufficiently medically stable at the time of the IRF admission to be able to actively participate in intensive therapy. (5) The patient requires supervision by a rehabilitation physician. This requirement is satisfied by physician face-to-face visits with a patient at least three days a week. (6) The patient requires an interdisciplinary approach to care.
- 4 The proprietary data come from eRehabdata.com, which has data on a subset of IRFs that subscribe to their inpatient rehabilitation outcomes system. eRehabdata.com has developed a protocol to assess whether a case satisfies the compliance threshold.
- 5 Source: MedPAC analysis of the Inpatient Rehabilitation Facility–Patient Assessment Instrument.
- 6 Source: MedPAC analysis of 2004 to 2010 data from eRehabData[®].
- 7 Scores for each of the 18 FIM items range from 1 (complete dependence) to 7 (independence). The scores on the 18 measures are summed to calculate a total score.
- 8 Total margins for hospital-based units also reflect the total margins for the entire hospital rather than for the IRF unit. For that reason, we do not present total margins for hospital-based units, as they do not reflect the total margin on IRF services.
- 9 In the fiscal year 2011 IRF final rule, CMS projected that actual outlier payments in fiscal year 2010 would be 3.1 percent of total payments. Consequently, CMS adjusted the outlier threshold for fiscal year 2011 to achieve the standard target of outlier payments equaling 3.0 percent of total payments for fiscal year 2011. This adjustment is projected to result in a 0.09 percent decrease in total IRF payments in 2011 relative to 2010.
- 10 This market basket forecast and productivity adjustment was made in the fourth quarter of 2010. CMS will use the most recent forecast available when setting updates, which may differ from the number we report here.

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CHAPTER 10

**Long-term care
hospital services**

R E C O M M E N D A T I O N

- 10** The Secretary should eliminate the update to the payment rate for long-term care hospitals for rate year 2012.

COMMISSIONER VOTES: YES 15 • NO 0 • NOT VOTING 0 • ABSENT 2

Long-term care hospital services

Chapter summary

Long-term care hospitals (LTCHs) furnish care to patients with clinically complex problems—such as multiple acute and chronic conditions—who need hospital-level care for relatively extended periods. To qualify as an LTCH for Medicare payment, a facility must meet Medicare’s conditions of participation for acute care hospitals and have an average length of stay of greater than 25 days for its Medicare patients. Medicare is the predominant payer for most LTCHs, accounting for about two-thirds of LTCH discharges. In 2009, Medicare spent \$4.9 billion on care furnished to roughly 400 LTCHs nationwide. About 116,000 beneficiaries had almost 131,500 LTCH stays.

Assessment of payment adequacy

Beneficiaries’ access to care—We have no direct measures of beneficiaries’ access to LTCH services. Instead, we consider the capacity and supply of LTCH providers and changes over time in the volume of services furnished.

- *Capacity and supply of providers*—In spite of the moratorium imposed by the Medicare, Medicaid, and SCHIP Extension Act of 2007 and subsequent amendments, the number of LTCHs increased 6.6 percent between 2008 and 2009, the largest growth seen since between 2004 and 2005. New LTCHs were able to enter the Medicare program because they met specific exceptions to the moratorium.

In this chapter

- Are Medicare payments adequate in 2011?
- How should Medicare payments change in 2012?
- Developing quality measures for LTCHs

- **Volume of services**—Controlling for the number of fee-for-service beneficiaries, we found that the number of LTCH cases rose 0.9 percent between 2008 and 2009, suggesting that access to care was maintained during this period.

Quality of care—Unlike most other health care facilities, LTCHs do not submit quality data to CMS. Until such measures are available, the Commission uses unadjusted aggregate trends in rates of in-facility mortality, mortality within 30 days of discharge, and readmissions from LTCHs to acute care hospitals. We found stable or declining rates of readmission, death in the LTCH, and death within 30 days of discharge for most of the top 20 diagnoses in 2009.

Providers' access to capital—The moratorium on new beds and facilities reduces opportunities in the near future for expansion and need for capital, although the largest LTCH chains continued with construction of new LTCHs that were already in the pipeline and thus exempt from the moratorium. In addition, these chains, which together own slightly more than half of all LTCHs, continued in 2010 to acquire other LTCHs as well as other post-acute care providers. Smaller LTCH chains and nonchain LTCHs, however, may not have the same level of access to capital as the large chains.

Medicare payments and providers' costs—Between 2005 and 2008, growth in cost per case outpaced that for payments, as regulatory changes to Medicare's payment policies for LTCHs slowed growth in payment per case to an average of 1.5 percent per year. After the Congress provided temporary relief from some payment regulations that would have constrained payments, payments per case climbed 6.4 percent between 2008 and 2009. Cost per case, however, rose less than 2 percent.

The 2009 Medicare margin for LTCHs was 5.7 percent. We expect that LTCHs, anticipating the expiration of the Congress's legislative relief, will continue to constrain their cost growth. We expect it to continue at the current pace—roughly similar to the latest forecast of the market basket for 2012 of 2.3 percent—as long as Medicare continues to put fiscal pressure on LTCHs. As a result, we estimate LTCHs' aggregate Medicare margin will be 4.8 percent in 2011.

Development of quality measures for LTCHs

The Patient Protection and Affordable Care Act of 2010 mandates that CMS implement a pay-for-reporting program for LTCHs by 2014. A panel convened by the Commission to provide input into the development of LTCH quality measures suggested that CMS begin with a starter set of 10 to 12 measures based on those that most LTCHs already use for internal quality monitoring. Panelists discussed several possible outcome, patient safety, and process measures that would be appropriate for use but cautioned

that careful attention is needed so as not to create incentives for providers to avoid admitting certain types of cases. The quality measures developed for LTCHs must be comparable to those used in other post-acute settings. Ultimately, policymakers should be able to compare patient safety and outcomes across the post-acute care spectrum to measure value—that is, to determine whether beneficiaries are receiving high-quality care in the least costly setting consistent with their clinical conditions.

The Commission considers a pay-for-reporting program to be a first step toward pay for performance. As soon as possible, the Congress should create stronger incentives for LTCH providers to improve care delivery by implementing pay for performance. ■

Background

Patients with clinically complex problems, such as multiple acute and chronic conditions, may need hospital-level care for relatively extended periods. Some are treated in long-term care hospitals (LTCHs). These facilities can be freestanding or colocated with other hospitals as hospitals within hospitals (HWHs) or satellites. To qualify as an LTCH for Medicare payment, a facility must meet Medicare's conditions of participation for acute care hospitals and have an average length of stay of greater than 25 days for its Medicare patients. (By comparison, the average Medicare length of stay in acute care hospitals is about five days.) There are no other criteria defining LTCHs, the level of care they furnish, or the patients they treat.¹ Because of the relatively long stays and the level of care provided, care in LTCHs is expensive. Medicare is the predominant payer for most LTCHs, accounting for about two-thirds of LTCH discharges. In 2009, Medicare spent \$4.9 billion on care furnished in an estimated 404 LTCHs nationwide. About 116,000 beneficiaries had almost 131,500 LTCH stays.

Since October 2002, Medicare has paid LTCHs prospective per discharge rates based primarily on the patient's diagnosis and the facility's wage index.² Under this prospective payment system (PPS), LTCH payment rates are based on the Medicare severity long-term care diagnosis related group (MS-LTC-DRG) patient classification system, which groups patients based primarily on diagnoses and procedures. MS-LTC-DRGs are the same groups used in the acute inpatient PPS but have relative weights specific to LTCH patients, reflecting the average relative costliness of cases in the group compared with that for the average LTCH case. LTCHs are paid outlier payments for patients who are extraordinarily costly. The PPS pays differently for short-stay outlier (SSO) cases (patients with shorter than average lengths of stay).³ The SSO policy reflects CMS's contention that Medicare should pay adjusted rates for patients with relatively short lengths of stay to reflect the reduced costs of caring for these patients.⁴

LTCH discharges are concentrated in a relatively small number of diagnosis groups. In fiscal year 2009, the top 20 LTCH diagnoses made up 55 percent of all LTCH discharges (Table 10-1, p. 236). The most frequently occurring diagnosis was MS-LTC-DRG 207, respiratory diagnosis with ventilator support for 96 or more hours. Eight of the top 20 diagnoses, representing 31 percent of LTCH patients, were respiratory conditions. The share

of respiratory conditions has increased slowly over time. Simultaneously, the share of rehabilitation cases and psychoses cases in LTCHs has dropped sharply. Between 2004 and 2009, rehabilitation cases declined from 4.1 percent to 1.2 percent of cases. Psychoses cases fell from 1.9 percent to 0.7 percent of cases.

The types of cases admitted by LTCHs are often treated in alternative settings. The Commission's analysis of claims data from 2001 found that, even among patients whose clinical characteristics placed them in the top 5 percent probability of using an LTCH, just 4 percent were admitted to these facilities in markets that had them (Medicare Payment Advisory Commission 2004). More recent research found that among all Medicare intensive care unit (ICU) patients receiving mechanical ventilation in 2006, only 8.7 percent were discharged to LTCHs (Kahn et al. 2010). In market areas without LTCHs, skilled nursing facilities (SNFs) are often used as a substitute. The Commission found that among acute care hospital patients with tracheostomies, 17 percent were discharged to freestanding SNFs in areas without LTCHs compared with 11 percent in areas with LTCHs. In areas without LTCHs, the very sickest patients may stay longer in the acute care hospital.

Nevertheless, nationwide there has been marked growth in both the number and the share of critically ill patients transferred from acute care hospitals to LTCHs. Kahn and colleagues found that, though the overall number of Medicare admissions to acute care hospital ICUs fell 14 percent between 1997 and 2006, the number of Medicare ICU patients discharged to LTCHs almost tripled. As a result, the share of critical care hospitalizations ending in transfer to an LTCH climbed from 0.7 percent in 1997 to 2.5 percent in 2006 (Kahn et al. 2010).⁵ Yet little is known about the quality of care furnished in LTCHs and how it compares with that in other settings.

LTCH care may have value for very sick patients. Previous Commission research found that Medicare pays more for patients using LTCHs than for similar patients in other settings; however, the payment differences were not statistically significant when LTCH care was targeted to the most severely ill patients (Medicare Payment Advisory Commission 2004).⁶ For patients with tracheostomies, Medicare spending for the episode of care was lower for those who used an LTCH than for those who did not. CMS-funded research by RTI International and a study funded by an industry association found similar results (National Association of Long Term Care Hospitals 2010, RTI International 2007).

**TABLE
10-1**

The top 20 MS-LTC-DRGs made up more than half of LTCH discharges in 2009

MS-LTC-DRG	Description	Discharges	Percentage
207	Respiratory system diagnosis with ventilator support 96+ hours	15,378	11.7%
189	Pulmonary edema and respiratory failure	9,438	7.2
871	Septicemia or severe sepsis without ventilator support 96+ hours with MCC	6,857	5.2
177	Respiratory infections and inflammations with MCC	4,690	3.6
592	Skin ulcers with MCC	3,913	3.0
949	Aftercare with CC/MCC	3,576	2.7
208	Respiratory system diagnosis with ventilator support <96 hours	2,729	2.1
190	Chronic obstructive pulmonary disease with MCC	2,687	2.0
193	Simple pneumonia and pleurisy with MCC	2,613	2.0
593	Skin ulcers with CC	2,103	1.6
539	Osteomyelitis with MCC	2,102	1.6
573	Skin graft and/or debridement for skin ulcer or cellulitis with MCC	1,984	1.5
559	Aftercare, musculoskeletal system and connective tissue with MCC	1,971	1.5
862	Postoperative and post-traumatic infections with MCC	1,953	1.5
291	Heart failure and shock with MCC	1,860	1.4
166	Other respiratory system OR procedures with MCC	1,810	1.4
178	Respiratory infections & inflammations with CC	1,797	1.4
682	Renal failure with MCC	1,783	1.4
314	Other circulatory system diagnosis with MCC	1,748	1.3
919	Complications of treatment with MCC	1,747	1.3
	Top 20 MS-LTC-DRGs	72,739	55.3
	Total	131,446	100.0

Note: MS-LTC-DRG (Medicare severity long-term care diagnosis related group), LTCH (long-term care hospital), CC (complication or comorbidity), MCC (major complication or comorbidity). MS-LTC-DRGs are the case-mix system for these facilities. Columns may not sum due to rounding.

Source: MedPAC analysis of MedPAR data from CMS.

That similar patients are treated in different settings raises questions about parity across providers. The Commission has long held that payment for the same set of services should be the same regardless of where the services are provided. If LTCH patients can be (and are) appropriately treated in other facilities, then Medicare’s payments should be neutral with respect to setting. The Commission is planning additional research on this issue, especially as better data become available to compare types of patients, quality of care, and outcomes—in addition to payments and costs—across acute and post-acute care settings to determine whether payments in each setting are sufficient.

Some LTCHs—both freestanding and those located within acute care hospitals—may function as de facto units of acute care hospitals. Research by the Commission and others has found that patients who use LTCHs have shorter acute care hospital lengths of stay than similar patients who do not

use these facilities, suggesting that LTCHs substitute for at least part of the acute hospital stay (Medicare Payment Advisory Commission 2004, RTI International 2007).⁷ The Commission has long been concerned about the nature of the services furnished by LTCHs and the possibility that acute care hospitals discharging patients to LTCHs may be unbundling services paid for under the acute care hospital PPS. To the extent that this practice occurs, Medicare pays twice for the same service—once to the acute care hospital and once to the LTCH. Further, early discharges from the acute care hospital may distort the acute inpatient PPS relative weights by reducing the costs of caring for certain types of cases in acute care hospitals that routinely discharge to LTCHs. To the extent that such distortion occurs, even after recalibration, acute care hospital payments may be too low for some patients in areas without LTCHs.

To discourage the inappropriate shifting of patients between acute care hospitals and nearby LTCHs, CMS established a policy—the so-called 25 percent rule—in fiscal year 2005.⁸ The 25 percent rule uses payment adjustments to limit the percentage of Medicare patients who are admitted from an HWH's or satellite's host hospital and paid for at full LTCH payment rates.⁹ Until criteria are developed defining the level of care and types of cases that are appropriate for LTCHs, the 25 percent rule may be a useful, if blunt, tool. But it is a flawed one. Under the 25 percent rule, an LTCH's decision to admit a patient may be based not only on the patient's clinical condition but also on how close the facility is to exceeding its threshold. In addition, as the Commission has previously noted, setting thresholds for only certain types of LTCHs is inequitable, especially given that the distinction between HWHs or satellites and freestanding LTCHs may not be meaningful.¹⁰ Some HWHs admit patients from a wide network of referring acute care hospitals, while some freestanding LTCHs admit patients primarily from just one acute care hospital. Further, some LTCHs may appropriately admit patients from only a small number of acute care hospitals because they are located in areas with a dominant acute care hospital, such as a trauma or transplant center. As discussed in the text box (pp. 238–239), the Commission has favored using criteria to define the type of patient who is appropriate for admission to an LTCH but who also may be treated in other settings—such as a step-down unit of an acute care hospital, a specialized skilled nursing facility (SNF), or a specialized inpatient rehabilitation facility (IRF)—and to help ensure that beneficiaries receive appropriate, high-quality care in the least costly setting consistent with their clinical conditions.

Beginning in July 2007, CMS extended the 25 percent rule to apply to all LTCHs, thus limiting the percentage of patients who could be admitted to an LTCH from any one referring acute care hospital during a cost-reporting period without being subject to a payment adjustment. However, the Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) and later amendments prevented the Secretary from phasing in application of the 25 percent rule to freestanding LTCHs (see text box on recent legislation affecting LTCHs, pp. 244–245).

Are Medicare payments adequate in 2011?

To address whether payments for the current year (2011) are adequate to cover the costs providers incur and how

much providers' costs should change in the coming year (2012), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care by examining the capacity and supply of LTCH providers and changes over time in the volume of services furnished, quality of care, providers' access to capital, and the relationship between Medicare payments and providers' costs.

Beneficiaries' access to care: Increase in capacity indicates favorable access

We have no direct measures of beneficiaries' access to LTCH services. Instead, we consider the capacity and supply of LTCH providers and changes over time in the volume of services they furnish.

Capacity and supply of providers: Number of LTCHs rose in 2009

As described in the text box (pp. 244–245) on recent legislation affecting LTCHs, the MMSEA and amendments imposed a limited moratorium on new LTCHs and new beds in existing LTCHs beginning July 2007 until December 28, 2012. We examined Medicare cost report data to assess the number of LTCHs and found that, in spite of the moratorium, the number of LTCHs filing Medicare cost reports increased 6.6 percent between 2008 and 2009, the largest growth seen since the period between 2004 and 2005 (Table 10-2, p. 240). New LTCHs were able to enter the Medicare program because they met specific exceptions to the moratorium. Most of these LTCHs had begun their qualifying period demonstrating an average Medicare length of stay greater than 25 days before December 30, 2007; had binding written agreements with unrelated parties for the construction, renovation, lease, or demolition of an LTCH, with at least 10 percent of the estimated cost of the project already expended by or before December 29, 2007; or had obtained a state certificate of need on or before December 29, 2007. A majority of the new LTCHs filing cost reports were for-profit facilities, and almost all of them were freestanding facilities. Preliminary analysis of Medicare's Provider of Service (POS) data indicates that far fewer LTCHs opened in 2010.

Medicare's POS file indicates that the number of Medicare-certified LTCHs in 2009 was about 6 percent higher than the number filing cost reports for that year. The two data sources differ for a number of reasons. Some Medicare-certified LTCHs may not yet have filed a cost report for 2009 when we undertook our analysis. In addition, LTCHs with very low Medicare patient volume may be exempt

Ensuring that appropriate patients are treated in long-term care hospitals

Previous research by the Commission found that the types of patients long-term care hospitals (LTCHs) treat are often cared for in alternative settings, such as acute care hospitals and skilled nursing facilities (SNFs) (Medicare Payment Advisory Commission 2004). The Commission found that Medicare pays more for patients using LTCHs than for similar patients using other settings; however, the payment differences narrowed considerably if LTCH care was targeted to the most severely ill patients. The Commission has therefore argued that, while LTCHs appear to have value for very sick patients, they are too expensive to be used for patients who could be treated in less intensive settings. As a result, in 2004, the Commission made the following recommendation:

The Congress and the Secretary should define long-term care hospitals by facility and patient criteria that ensure that patients admitted to these facilities are medically complex and have a good chance of improvement.

- **Facility-level criteria should characterize this level of care by features such as staffing, patient evaluation and review processes, and mix of patients.**

- **Patient-level criteria should identify specific clinical characteristics and treatment modalities.**

Facility-level criteria could include requirements such as a patient evaluation and review process, a patient assessment tool, and the availability of physicians. Patient-level criteria should identify specific clinical characteristics and treatments that are indicative of a need for intensive services.

In a comment letter to CMS on its rate year 2009 proposed rule on the LTCH prospective payment system, the Commission noted that, because the types of cases treated by LTCHs are also treated in other settings, CMS should seek to define the level of care appropriately furnished in LTCHs as well as in step-down units of many acute care hospitals and some specialized SNFs and inpatient rehabilitation facilities (Medicare Payment Advisory Commission 2008b).¹¹ The distinction is important because Medicare's goal is to ensure that beneficiaries receive appropriate, high-quality care in the least costly setting consistent with their clinical conditions. Further, the Commission has long held that payment for the same set of services should be the same regardless of where the services are provided (Medicare Payment Advisory Commission 2009).

(continued next page)

from filing cost reports. In both cases, the LTCHs would not be included in the cost report data we analyzed but would be present in the POS data. At the same time, POS data may overstate the total number of LTCHs because facilities that close may not be immediately removed from the file. The cost report data, therefore, provide a more conservative estimate of capacity and supply. It should be noted that the rate of increase in the number of facilities between 2008 and 2009 was almost the same in both data sources. Commission analysis revealed inaccuracies in ownership status in the POS data, so we opted to rely on cost report data to determine the distribution of facilities across the ownership and location categories shown in Table 10-2 (p. 240).

LTCHs are not distributed evenly across the nation (Figure 10-1, p. 241). Some areas have many LTCHs; others have

none. The absence of LTCHs in many areas of the country suggests that medically complex patients can be treated appropriately in other settings, making it difficult to assess the need for LTCH care and therefore the adequacy of supply.

Many LTCHs that have entered the Medicare program since implementation of the LTCH PPS have located in markets where LTCHs already existed instead of in new markets with few or no LTCHs; this pattern continued in 2009.¹² The pattern is somewhat counterintuitive, because these facilities are supposed to be serving unusually sick patients, and one would expect such patients to be relatively rare. The clustering of LTCHs in certain markets raises questions about the role these facilities play in the continuum of care. An oversupply of LTCH beds

Ensuring that appropriate patients are treated in long-term care hospitals (cont.)

The Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) changed the definition of LTCHs to include some of the facility criteria recommended by the Commission in 2004. In addition to meeting the conditions of participation applicable to acute care hospitals, LTCHs are now required to:

- Have a patient review process that screens patients both before admission and regularly throughout their stay to ensure appropriateness of admission and continued stay, although the law does not specify the patient criteria to be used to determine appropriateness;
- Have active physician involvement with patients during their treatment, with physician on-site availability on a daily basis to review patient progress and consulting physicians on call and capable of being at the patient's side within a period of time determined by the Secretary; and
- Have interdisciplinary treatment teams of health care professionals, including physicians, to prepare and carry out individualized treatment plans for each patient.

As this report went to press, the Secretary was drafting proposed regulations on the conditions of participation

required for LTCHs, based on the facility criteria outlined in the MMSEA. More stringent conditions of participation will help ensure that LTCH providers are capable of furnishing appropriate care to these very sick patients. But patient criteria will also be crucial in determining whether LTCH care—or other medically complex care—is appropriate for individual beneficiaries. Beneficiaries who can be appropriately treated in lower acuity settings should not be admitted to LTCHs, because the cost of care in LTCHs is so high.

To develop useful patient criteria, CMS needs more data to compare types of patients, payments and costs, quality of care, and outcomes across facilities that furnish medically complex care and other post-acute care. Such data will provide the information needed to determine whether care is appropriate and of high quality and whether payments are sufficient. CMS's post-acute care payment reform demonstration—which tested the use of a single assessment tool in multiple post-acute care settings, including LTCHs—and the upcoming implementation of LTCH quality measures should begin to provide the data CMS needs. Ongoing CMS research on differences in LTCHs' and acute care hospitals' clinical composition, payments and costs, and outcomes will further enhance understanding in this area. ■

in a market may result in admissions to LTCHs of less complex cases that could be appropriately treated in other, less costly, settings.

Volume of services: Use of LTCHs by fee-for-service beneficiaries suggests access has been maintained

Beneficiaries' use of services suggests that access has not been a problem. Controlling for the number of fee-for-service beneficiaries, we found that the number of LTCH cases rose 0.9 percent between 2008 and 2009, suggesting that access to care was maintained during this period (Table 10-3, p. 242). A precise assessment of volume changes, however, is difficult because, as mentioned above, it is not clear that all patients treated in LTCHs require that level of care. Further, there is little evidence that patient outcomes in LTCHs are superior to

those achieved in other settings. In the absence of such evidence, the Commission has argued that LTCH care is too expensive to be used for patients who can be treated appropriately in less intensive settings.

Compared with all Medicare beneficiaries, beneficiaries admitted to LTCHs are disproportionately under age 65, over age 85, disabled, and diagnosed with end-stage renal disease (Table 10-4, p. 243). They are also more likely to be African American. The higher rate of LTCH use by African American beneficiaries may be due to a greater incidence of critical illness in this population (Mayr et al. 2010). At the same time, African American beneficiaries may be more likely to opt for LTCH care given that they are less likely to choose withdrawal from mechanical ventilation in the ICU and to have do-not-resuscitate

**TABLE
10-2**

The number of LTCHs increased in 2009 despite the moratorium

Type of LTCH	2003	2004	2005	2006	2007	2008	2009	Average annual change		
								2003-2005	2005-2008	2008-2009
All	277	315	366	372	382	379	404	14.9%	1.2%	6.6%
Urban	265	300	343	348	356	350	383	13.8	0.7	9.4
Rural	12	15	23	24	24	23	21	38.4	0.0	-8.7
Freestanding	186	201	227	230	232	233	248	10.5	0.9	6.4
Hospital within hospital	91	114	139	142	150	146	156	23.6	1.7	6.8
Nonprofit	60	70	83	82	81	80	78	17.6	-1.2	-2.5
For profit	200	227	262	269	280	281	308	14.5	2.4	9.6
Government	17	18	21	21	21	18	18	11.1	-5.0	0.0
Total certified beds	21,024	22,325	25,731	25,653	26,085	26,326	27,332	10.6	0.8	3.8

Note: LTCH (long-term care hospital). Numbers may not sum to total due to missing data.

Source: MedPAC analysis of Medicare cost report files from CMS.

orders (Borum et al. 2000, Diringer et al. 2001). The concentration of LTCHs in urban areas also may be a contributing factor (Kahn et al. 2010). Further, as noted, a disproportionate number of Medicare beneficiaries who use LTCHs are under age 65, a subgroup that is more likely to be African American.

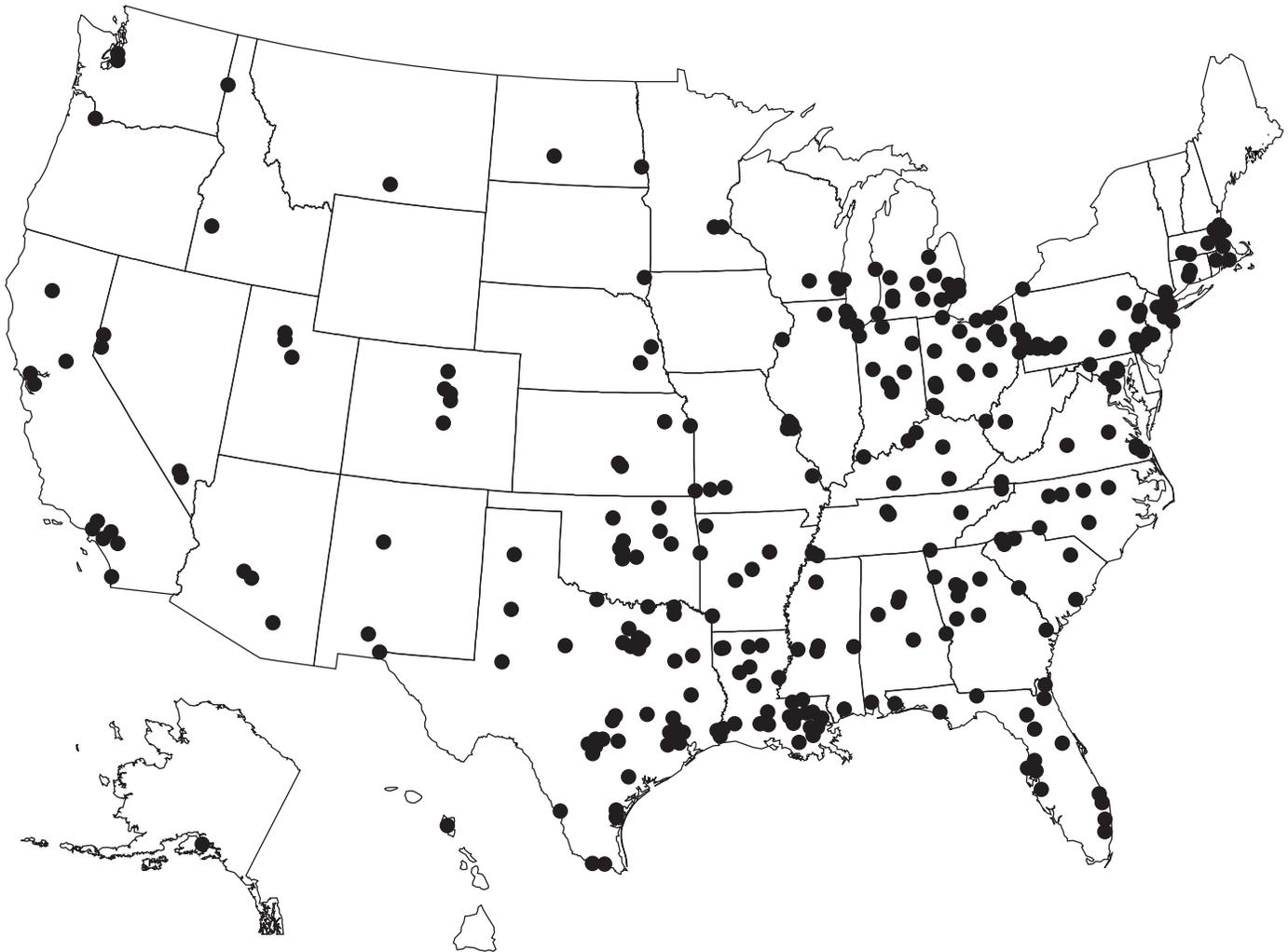
Among the beneficiaries admitted to LTCHs in 2009, 40 percent were dually eligible for Medicaid at some point during the year. Some of these patients may have become dually eligible over the course of a long spell of illness including an LTCH stay. We found that LTCH users who were dually eligible were more likely than nonduals to be admitted for infections such as septicemia, skin ulcers, and osteomyelitis. In part because mortality rates for these DRGs are lower, dual eligibles were less likely than nonduals to die during their LTCH stay (11.6 percent vs. 14.9 percent). Dual eligibles also were less likely to be SSOs (28.7 percent vs. 32.7 percent). In addition, we found that dual eligibles were more likely than non-dual eligibles to be admitted to for-profit LTCHs (84.2 percent vs. 79.4 percent). Among beneficiaries discharged alive, those who were dually eligible were more likely than nonduals to be transferred to SNFs (40 percent vs. 33 percent).

Quality of care: Meaningful measures not currently available while gross indicators show stability

Unlike most other health care facilities, LTCHs do not submit quality data to CMS. As we discussed in the Commission's March 2010 report, adopting existing acute care hospital quality indicators would not be appropriate or reliable for LTCHs, and LTCH-specific quality measures need to be developed (Medicare Payment Advisory Commission 2010). Until such measures are available, the Commission instead uses unadjusted aggregate trends in rates of in-facility mortality, mortality within 30 days of discharge, and readmissions from LTCHs to acute care hospitals. (We focus on examining trends, rather than levels, because levels can include planned readmissions as well as unplanned incidents and can be skewed by coding practices.) We consider these indicators for the top 20 LTCH diagnoses in 2009 (Table 10-1, p. 236). For most of these diagnoses, we found stable or declining rates of readmission, death in the LTCH, and death within 30 days of discharge. The highest rates of in-LTCH death in 2009 (28 percent) occurred in patients with primary respiratory system diagnoses with ventilator support (MS-LTC-DRGs 208 and 207). An additional 43 percent of patients with these diagnoses died within 30 days of discharge from the LTCH. These death rates speak to the

**FIGURE
10-1**

Long-term care hospitals are not distributed evenly across the nation



Note: Each dot represents the location of a long-term care hospital.

Source: MedPAC analysis of 2009 Provider of Service file and cost report data from CMS.

frailty of many LTCH patients and the complexity of their conditions.

The Commission has long been concerned about the lack of reliable quality measures for LTCHs and has urged CMS to collect the data necessary to compare quality and outcomes in LTCHs and across the post-acute care spectrum. The Patient Protection and Affordable Care Act of 2010 (PPACA) calls on CMS to design and implement a pay-for-reporting program for LTCHs by 2014. In October 2010, the Commission convened a panel to provide input into developing quality measures for the program. CMS's post-acute care demonstration may provide additional

information on the use of patient assessment instruments in LTCHs as well as on costs and outcomes across post-acute care providers. A report to the Congress is planned for June 2011.

The Commission pointed out previously that providers may need a critical mass of medically complex patients to maintain treatment expertise and achieve a high quality of care (Medicare Payment Advisory Commission 2008a, Medicare Payment Advisory Commission 2008c, Medicare Payment Advisory Commission 2010). Research has shown that higher patient volume is associated with better outcomes for certain procedures, such as surgery for

**TABLE
10-3**

Medicare LTCH spending per FFS beneficiary continues to rise

	2003	2004	2005	2006	2007	2008	2009	Average annual change		
								2003-2005	2005-2008	2008-2009
Cases	110,396	121,955	134,003	130,164	129,202	130,869	131,446	10.2%	-0.8%	0.4%
Cases per 10,000 FFS beneficiaries	30.8	33.4	36.4	36.0	36.3	37.0	37.4	8.8	0.6	0.9
Spending (in billions)	\$2.7	\$3.7	\$4.5	\$4.5	\$4.5	\$4.6	\$4.9	29.1	0.8	6.4
Spending per FFS beneficiary	\$75.2	\$101.3	\$122.2	\$124.3	\$126.5	\$130.4	\$139.3	27.5	2.2	6.8
Payment per case	\$24,758	\$30,059	\$33,658	\$34,859	\$34,769	\$35,200	\$37,465	16.6	1.5	6.4
Length of stay (in days)	28.8	28.5	28.2	27.9	26.9	26.7	26.4	-1.0	-1.8	-1.1

Note: LTCH (long-term care hospital), FFS (fee-for-service).

Source: MedPAC analysis of MedPAR data from CMS.

cancers of the pancreas and esophagus (Birkmeyer et al. 2002, Institute of Medicine 2000). Studies have also found a positive relationship between volume and outcomes for patients admitted to ICUs in acute care hospitals, notably those receiving mechanical ventilation (Durairaj et al. 2005, Kahn et al. 2006, Kahn et al. 2009). More research is needed to evaluate outcomes across different types of LTCHs. If LTCHs with higher patient volume can demonstrate better outcomes, it may be appropriate to view LTCHs (and other providers of medically complex care) as regional referral centers, serving wider catchment areas. The development of facility and patient criteria, which the Commission has long advocated, would be an important step in implementing this type of care model. Such criteria would describe the appropriate patient for this level of care—whether furnished in an LTCH, acute care hospital, specialized SNF, or IRF—and outline the staff credentials and service capabilities needed to furnish this level of care.

Providers’ access to capital: Generally improved

Access to capital allows LTCHs to maintain and modernize their facilities. If LTCHs were unable to access capital, it might in part reflect problems with the adequacy of Medicare payments, since Medicare accounts for about

half of LTCH total revenues.¹³ However, at the present time, the availability of capital says more about regulations and legislation governing LTCHs than it does about current reimbursement rates. The moratorium on new beds and facilities imposed by the MMSEA and subsequent amendments reduces opportunities in the near future for expansion and need for capital, although the three largest LTCH chains continued with construction of new LTCHs that were already in the pipeline and thus exempt from the moratorium when it was imposed. In addition, these chains, which together own slightly more than half of all LTCHs, continued in 2010 to acquire other LTCHs as well as other post-acute care providers. As reported on 10-K forms filed with the Securities and Exchange Commission, all three chains have access to credit that they have tapped to finance these acquisitions. Smaller LTCH chains and nonchain LTCHs likely do not enjoy the same access to capital.

LTCH companies are increasingly diversified, vertically as well as horizontally, which may improve their ability to control costs and better position them for payment policy changes. For example, Kindred Healthcare has been actively pursuing a “cluster market” strategy, whereby the company owns SNFs and home health agencies, in addition to LTCHs, within a single market in order to

position itself as an integrated provider of post-acute care. Nevertheless, given the uncertainty surrounding payment policy for post-acute care services, the company reportedly is proceeding with caution (Kamp 2010).

Policymakers' increased scrutiny of Medicare spending on LTCH care and of the quality provided in these settings has heightened anxieties about the industry. Compared with last year, stock prices for publicly traded Select Medical Corp. (which owns 111 LTCHs) and RehabCare Group (which owns 30 LTCHs) are down substantially. Although Kindred Healthcare, the second largest LTCH chain, has seen its stock price rise recently following strong third-quarter results, some analysts consider the LTCH industry to be one of the riskiest of the health care provider settings.¹⁴

Medicare payments and providers' costs

In the first three years of the LTCH PPS, Medicare spending for LTCH services grew rapidly, climbing an average of 29 percent per year (Table 10-3). Subsequent changes in payment policies and growth in the number of beneficiaries enrolling in Medicare Advantage plans slowed spending growth between 2005 and 2008 to less than 1 percent per year. Between 2008 and 2009, however, spending jumped more than 6 percent. CMS estimates that total Medicare spending for LTCH services will be \$5.2 billion in 2011 and will reach \$6.3 billion by 2015 (Bean 2010).

In the first years of the PPS, LTCHs appeared to be responsive to changes in payment, adjusting their costs per case when payments per case changed. Payment per case increased rapidly after the PPS was implemented, climbing an average 16.6 percent per year between 2003 and 2005. Cost per case also increased rapidly during this period, albeit at a somewhat slower pace (Figure 10-2, p. 246). Between 2005 and 2008, however, growth in cost per case outpaced that for payments, as regulatory changes to Medicare's payment policies for LTCHs slowed growth in payment per case to an average of 1.5 percent per year. After the Congress delayed implementation of some of CMS's recent regulations of payment policies, payments per case climbed 6.4 percent between 2008 and 2009. Cost per case, however, rose less than 2 percent.

Another factor that has influenced payment growth under the PPS is growth in the reported patient case-mix index, which measures the expected costliness of a facility's patients (Centers for Medicare & Medicaid Services 2006, Centers for Medicare & Medicaid Services 2007, Centers

**TABLE
10-4**

Characteristics of Medicare beneficiaries using LTCHs, 2009

Characteristic	Percent of:	
	LTCH users	All beneficiaries
Sex		
Female	52%	55%
Male	48	45
Race		
White, non-Hispanic	74	83
African American, non-Hispanic	19	10
Hispanic	3	3
Other	4	4
Age (in years)		
<65	23	17
65-74	30	44
75-84	30	27
85+	17	12
Eligibility status		
Aged	77	83
Disabled	22	17
ESRD only	1	0.5

Note: LTCH (long-term care hospital), ESRD (end-stage renal disease). Columns may not sum due to rounding.

Source: MedPAC analysis of MedPAR and administrative data from CMS.

for Medicare & Medicaid Services 2008, Centers for Medicare & Medicaid Services 2009, Centers for Medicare & Medicaid Services 2010). Although some part of the increase in LTCHs' case-mix index is due to growth in the intensity and complexity of patients admitted to LTCHs, experience suggests that the introduction of new case-mix classification systems and subsequent refinements to those systems usually lead to more complete documentation and coding of the diagnoses, procedures, services, comorbidities, and complications that are associated with payment (Centers for Medicare & Medicaid Services 2009, Medicare Payment Advisory Commission 2009, RAND Corporation 1990). A new case-mix classification system (such as the long-term care diagnosis related groups (LTC-DRGs) introduced with the PPS in 2003) or refinements to a system (such as the MS-LTC-DRGs implemented in October 2007) can thus raise the average case-mix index even though patients are no more resource intensive than

Provisions of recent legislation for long-term care hospitals

The Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) included several provisions related to long-term care hospitals (LTCHs), including a moratorium on new LTCHs, changes to the 25 percent rule, and changes to the short-stay outlier policy. Subsequent amendments in the American Recovery and Reinvestment Act of 2009 (ARRA) and the Patient Protection and Affordable Care Act of 2010 (PPACA) revised some of the MMSEA's provisions and added new ones.

Moratorium on new LTCHs

The MMSEA as amended by ARRA and PPACA imposes a moratorium on new facilities and new beds in existing facilities until December 29, 2012. Exceptions to the moratorium are allowed for: (1) LTCHs that began their qualifying period demonstrating an average Medicare length of stay greater than 25 days on or before December 29, 2007; (2) entities that had a binding written agreement with an unrelated party for the construction, renovation, lease, or demolition of an LTCH, with at least 10 percent of the estimated cost of the project already expended on or before December 29, 2007; (3)

entities that had obtained a state certificate of need on or before December 29, 2007; (4) existing LTCHs that had obtained a certificate of need for an increase in beds issued on or after April 1, 2005, and before December 29, 2007; and (5) existing LTCHs that are located in a state with only one other LTCH and that seek to increase beds after the closure or decrease in the number of beds of the state's other LTCH.

The 25 percent rule

The MMSEA as amended by ARRA and PPACA rolls back the phased-in implementation of the 25 percent rule for hospitals within hospitals (HWHs) and satellites, limiting the proportion of Medicare patients who can be admitted from an HWH's or a satellite's host hospital during a cost-reporting period to not more than 50 percent and holding it at this level until October 1, 2012 (July 1, 2012 for satellites). (The applicable threshold for HWHs and satellites in rural and urban areas with a single or dominant acute care hospital is 75 percent.)¹⁵ In addition, the Secretary is prohibited from applying the 25 percent rule to freestanding LTCHs before cost-reporting periods beginning on July 1, 2012.

(continued next page)

they were previously. Such classification system changes can therefore lead to unwarranted increases in payments to providers. CMS estimated that the case-mix increase attributable to documentation and coding improvements was 1.3 percent between 2007 and 2008 and 2.5 percent between 2008 and 2009. (Centers for Medicare & Medicaid Services 2009, Centers for Medicare & Medicaid Services 2010).¹⁶

After the LTCH PPS was implemented in 2003, margins rose rapidly for all LTCH provider types, climbing between 2002 and 2005 from -0.1 percent to 11.9 percent (Table 10-5, p. 247). At that point, margins began to fall, as growth in payments per case leveled off. However, in 2009, LTCH margins began to increase again, reaching 5.7 percent.

Financial performance in 2009 varied across LTCHs. The aggregate Medicare margin for for-profit LTCHs (which account for 83 percent of all Medicare discharges from LTCHs) was 7.3 percent, compared with -0.2 percent for nonprofit facilities (which account for 16 percent of all Medicare LTCH discharges). Rural LTCHs' aggregate margin was -3.7 percent, compared with 6.0 percent for their urban counterparts. Rural providers account for about 4 percent of all LTCH discharges. They tend to be smaller than urban LTCHs, caring for a smaller volume of patients on average, which may result in poorer economies of scale.

We looked closely at the characteristics of established LTCHs with the highest and lowest margins.¹⁷ A quarter of all LTCHs had margins in excess of 15.7 percent, while another quarter had margins below -3.9 percent. High-

Provisions of recent legislation for long-term care hospitals (cont.)

Short-stay outliers

The MMSEA as amended by ARRA and PPACA prohibits the Secretary from further reducing payments for LTCH cases with the shortest lengths of stay (so-called “very short-stay outliers”) until December 29, 2012.

Budget neutrality

When the LTCH prospective payment system (PPS) was implemented in fiscal year 2003, CMS set payments at a level calculated to be equal to the estimated aggregate payments that would have been made if the LTCH PPS had not been implemented. This budget-neutrality adjustment was required by statute. CMS cautioned, however, that when data were available on actual payments made in the first year of the PPS, an additional adjustment to the LTCH PPS rates might be necessary so that the effect of any significant differences between actual payments and estimated payments for the first year of the PPS would not be perpetuated for future years, and the agency provided for the possibility of this adjustment by July 1, 2008 (Centers for Medicare & Medicaid Services 2008). The MMSEA as amended by ARRA and PPACA prohibits the Secretary from applying any budget-neutrality adjustment until December 29, 2012.

CMS report to the Congress on LTCH facility and patient criteria

The MMSEA requires the Secretary to conduct a study on the use of LTCH facility and patient criteria to determine medical necessity and appropriateness of admission to and continued stay at LTCHs, considering both the Secretary’s ongoing work on the subject and Commission recommendations (Medicare Payment Advisory Commission 2004). The report was due to the Congress in July 2009. As this report goes to press, CMS’s report is still pending.

Pay for reporting

PPACA requires CMS to implement a pay-for-reporting program for LTCHs by 2014. The program should require LTCHs to report a specified list of quality measures—to be determined by CMS—each year in order to receive a full update to Medicare payment rates in the ensuing year.

Reductions in payment

PPACA specifies that any annual update to the LTCH standard rate shall be reduced by a quarter of a percentage point in 2010 and by half of a percentage point in 2011. For rate years 2012 through 2019, any update shall be reduced by the specified productivity adjustment. ■

margin LTCHs were much more likely to be for profit than were their low-margin counterparts (Table 10-6, p. 247). As with SNFs and home health agencies, lower unit costs—rather than higher payments—were the primary driver of differences in financial performance between LTCHs with the lowest and highest Medicare margins (those in the bottom and top 25th percentiles of Medicare margins). Low-margin LTCHs had standardized costs per discharge that were almost 50 percent higher than high-margin LTCHs (\$37,647 vs. \$26,122). The average Medicare length of stay was one day longer in low-margin than in high-margin facilities.

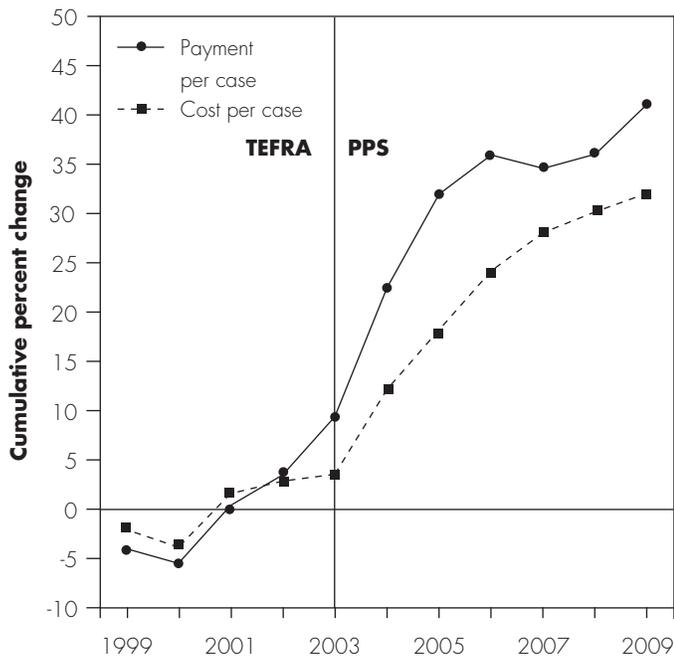
High-cost outlier payments per discharge for low-margin LTCHs were more than double those of high-margin LTCHs (\$3,887 vs. \$1,455). At the same time, SSOs made up a larger share of low-margin LTCHs’ cases (35

percent vs. 27 percent). Low-margin LTCHs thus cared for disproportionate shares of patients who were both high-cost outliers and patients who had shorter stays. Both types of patients can have a negative effect on LTCHs’ margins. LTCHs lose money on high-cost outlier cases since, by definition, they generate costs that exceed payments.¹⁸ Payments for SSOs can not be more than 100 percent of the costs of the case.

Low-margin LTCHs served fewer patients overall (an average of 410 in 2009 compared with 533 for high-margin LTCHs). Poorer economies of scale may therefore have affected low-margin LTCHs’ costs. We observed the same correlation in rural facilities, as described above. This finding suggests that a critical mass of patients might be needed not only to maintain expertise and achieve a high quality of care, as discussed above, but also to

**FIGURE
10-2**

LTCHs' per case payment rose more quickly than costs in 2009



Note: LTCH (long-term care hospital), TEFRA (Tax Equity and Fiscal Responsibility Act of 1982), PPS (prospective payment system). Percent changes are calculated based on consistent two-year cohorts of LTCHs.

Source: MedPAC analysis of Medicare cost report data from CMS.

achieve economies of scale. If so, then the proliferation of LTCHs in some markets might be cause for concern. The referral center model of care for medically complex patients described above may be able to provide more value for the Medicare program by demonstrating better outcomes with greater efficiency. However, if analyses of quality data show that small LTCHs can provide comparable outcomes, policymakers may want to consider whether a low-volume payment adjustment is warranted.

To estimate 2011 payments and costs with 2009 data, the Commission considered policy changes effective in 2010 and 2011. Those that affect our estimate of the 2011 Medicare margin include:

- a market basket increase of 2.5 percent for 2010, offset by an adjustment of 0.5 percent for past coding improvements and, as required by PPACA, a 0.25 percentage point reduction, for a net update of 1.74 percent;

- a 0.25 percentage point increase, as required by PPACA, for the first six months of fiscal year 2010 (i.e., for discharges occurring on or after October 1, 2009, and before April 1, 2010), which increases payments for discharges occurring during the period;
- a market basket increase of 2.5 percent for 2011, offset by an adjustment of 2.5 percent for past coding improvements and, as required by PPACA, a 0.50 percentage point reduction, for a net update of -0.49 percent;
- adjustments to outlier payments in 2010 and 2011, which increase payments; and
- changes to the wage index in 2010, which decrease payments.

We estimate that LTCHs' aggregate Medicare margin will be 4.8 percent in 2011.

How should Medicare payments change in 2012?

The Secretary has the discretion to update payments for LTCHs; there is no congressionally mandated update. In anticipation of the expiration of temporary legislative relief from some of CMS's payment regulations, LTCHs should continue to constrain their cost growth. We expect growth in costs to continue at the current pace—roughly similar to the latest forecast of the market basket for 2012 of 2.3 percent—as long as Medicare continues to put fiscal pressure on LTCHs.

Update recommendation

On the basis of our review of payment adequacy for LTCHs, the Commission recommends that the Secretary eliminate the update to the LTCH payment rates.

RECOMMENDATION 10

The Secretary should eliminate the update to the payment rate for long-term care hospitals for rate year 2012.

RATIONALE 10

In sum, the supply of facilities and beds increased in 2009, and the number of cases per fee-for-service beneficiary was stable, suggesting that access to care has been maintained. The limited quality trends we measure appear stable. LTCHs appear to have access to the capital they

TABLE 10-5**The aggregate average LTCH Medicare margin rose in 2009**

Type of LTCH	Share of discharges	2002	2003	2004	2005	2006	2007	2008	2009
All	100%	-0.1%	5.2%	9.0%	11.9%	9.7%	4.8%	3.5%	5.7%
Urban	96	-0.1	5.2	9.2	11.9	9.9	5.0	3.8	6.0
Rural	4	-0.5	4.5	2.6	10.1	4.9	-0.7	-2.8	-3.7
Freestanding	70	0.1	5.6	8.4	11.3	9.3	4.3	3.1	4.9
Hospital within hospital	30	-0.5	4.2	10.6	13.1	10.8	5.8	4.4	7.6
Nonprofit	16	0.1	1.9	6.9	9.0	6.6	1.3	-2.4	-0.2
For profit	83	-0.1	6.3	10.0	13.1	10.9	5.9	5.1	7.3
Government*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

Note: LTCH (long-term care hospital), N/A (not available). Columns may not sum to 100 percent due to rounding or missing data.

*Margins for government-owned providers are not shown. They operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of Medicare cost report data from CMS.

need, although the moratorium on LTCH growth should now begin to limit opportunities for expansion. Margins for 2009 were positive, and we expect they will remain so. These trends suggest that LTCHs are able to operate within current payment rates. We will closely monitor our payment update indicators and will be able to reassess our recommendation for the LTCH payment update in the next fiscal year.

IMPLICATIONS 10

Spending

- Because CMS typically uses the market basket as a starting point for establishing updates to LTCH payments, this recommendation decreases federal program spending by between \$50 million and \$250 million in one year and by less than \$1 billion over five years.

Beneficiary and provider

- This recommendation is not expected to affect Medicare beneficiaries' access to care or providers' ability to furnish care.

Developing quality measures for LTCHs

Unlike most other health care facilities (such as hospitals, nursing homes, and home health agencies), LTCHs do not submit data to CMS about the quality of the care they furnish. The Commission has long been concerned

TABLE 10-6**LTCHs in the top quartile of Medicare margins in 2009 had much lower costs**

Characteristics	High-margin LTCHs	Low-margin LTCHs
Mean total discharges (all payers)	533	410
Medicare patient share	66%	64%
Average length of stay (in days)	26	27
Mean per discharge:		
Standardized costs	\$26,123	\$37,647
Medicare payment	\$38,635	\$37,094
High-cost outlier payments	\$1,455	\$3,887
Share of:		
Cases that are SSOs	27%	35%
Medicare cases from primary-referring ACH	39	38
LTCHs that are for profit	92	70

Note: LTCH (long-term care hospital), SSO (short-stay outlier), ACH (acute care hospital). Includes only established LTCHs—those that filed valid cost reports in both 2008 and 2009. Top margin quartile LTCHs were in the top 25 percent of the distribution of Medicare margins. Bottom margin quartile LTCHs were in the bottom 25 percent of the distribution of Medicare margins. Standardized costs have been adjusted for differences in case mix and area wages. SSO-adjusted case-mix indexes have been adjusted for differences in SSOs across facilities. Average primary-referring ACH referral share indicates the mean share of patients referred to LTCHs in the quartile from the ACH that refers the most patients to the LTCH.

Source: MedPAC analysis of LTCH cost reports and MedPAR data from CMS.

about the lack of reliable quality measures for LTCHs and has urged CMS to collect the data necessary to compare quality and outcomes in LTCHs and across the post-acute care spectrum.

To remedy this problem, the Congress mandated in PPACA that CMS implement a pay-for-reporting program for LTCHs by 2014. Such a policy has been in place for short-term acute care hospitals since 2003. Under Medicare's Hospital Inpatient Quality Reporting Program, CMS requires hospitals to report a specified list of quality measures each year in order to receive a full update to Medicare payment rates in the ensuing year. This program creates incentives for providers not only to report the quality of their care but also to take steps to improve it and raise their quality scores. CMS makes some of the quality data available to consumers on Medicare's Hospital Compare website. More than 95 percent of short-term hospitals opt to participate in the program. For fiscal year 2011, CMS requires 46 measures that cut across some of the most common diagnoses for Medicare inpatient care, such as heart failure, pneumonia, and heart attacks. (Some of the measures are calculated by CMS using Medicare claims data, while others are affirmatively reported to CMS through the abstraction of data from a medical record that pertains to each of the quality measures.) Because many of the measures used in short-term hospitals do not apply to LTCH patients, CMS needs to identify a separate set of quality measures for use in LTCHs.

In developing quality measures for LTCHs, CMS should be mindful of the measures that are already being used in other post-acute settings and should strive, when feasible and appropriate, to replicate those measures in the LTCH quality measurement set. Results from CMS's post-acute care demonstration, which tested the use of a uniform assessment tool in different post-acute settings, should provide much needed information about the extent to which consistent quality and outcome measures can be used in different settings. Ultimately, policymakers must be able to compare quality of care and patient outcomes across the post-acute care spectrum to measure the value Medicare gets from the money it spends and to help ensure that beneficiaries receive appropriate, high-quality care in the least costly setting consistent with their clinical conditions.

The Commission considers a pay-for-reporting program to be a first step toward pay for performance. As soon as possible, the Congress should change the incentives of the

LTCH payment system by basing a portion of provider payment on performance on quality and outcomes measures. Linking a portion of payment to performance will create stronger incentives for LTCH providers to improve care delivery.

Panel on quality measures for LTCHs

In October 2010, the Commission convened a panel to provide insight into the development of LTCH quality measures. Panel participants included clinicians, LTCH administrators and medical directors, experts in quality measurement development, and researchers with knowledge of best practices in caring for post-ICU patients in LTCHs and other settings. Panelists unanimously agreed that quality measures were needed in the LTCH setting.

Participants suggested that Medicare begin with a starter set of 10 to 12 measures based on the measures that most LTCHs already use for internal quality monitoring. Panelists discussed several possible outcome, patient safety, and process measures that would be appropriate for use—including unplanned readmissions, incidence of infections and pressure ulcers, falls with injury, and staffing ratios—but cautioned that careful attention must be paid to avoid creating incentives for providers to engage in patient selection. A challenge in adapting these measures to a nationally consistent set of measures is that many LTCH providers define the specifications for these measures—such as definitions of numerators, denominators, and patient inclusion and exclusion criteria—differently. Measure specifications need to be standardized before the measures can be used to compare quality across facilities and over time.

Outcome measures

Panelists discussed several possible outcome measures but cautioned that careful attention must be paid to avoid creating incentives for providers to cherry-pick. Measurements need to be thoughtfully defined and inclusion and exclusion criteria thoroughly described. Panelists agreed that many LTCHs have at least some leeway in patient selection (some LTCHs have a great deal of leeway), but this flexibility differs substantially across market areas.

Unplanned readmission to acute care hospital Panelists agreed that planned readmissions to the acute care hospital are common for LTCH patients, but the rate of unplanned readmissions is an important indicator of quality. Panelists discussed the merits of a measure that takes into account the timing of a readmission. For example, a readmission to

the acute care hospital shortly after admission to the LTCH may indicate that the patient was discharged too soon, whereas a readmission after several weeks in the LTCH may indicate a problem with quality of care. Panelists noted that differences in facility characteristics that may have little to do with quality of care can affect the rate of unplanned readmission. For example, some LTCHs have ICUs; these facilities may be much less likely than other LTCHs to readmit patients to the acute care hospital. LTCHs located within acute care hospitals may also have different readmission patterns compared with their freestanding counterparts. Participants cautioned against creating adverse incentives that would discourage LTCHs from appropriately readmitting patients. In addition, panelists noted that use of this measure might affect decisions about which patients to admit to the LTCH.

Ventilator weaning Panelists agreed that weaning from the ventilator is a goal for ventilator-dependent patients, who make up about 12 percent of LTCH patients on average. However, panelists voiced concern about how the measure would be defined. There is no widely accepted measure of weaning success; studies of weaning from ventilator dependency define “successful” weaning differently, ranging from 3 days to being ventilator-free at discharge. In addition, panelists reported that there are differences across facilities in the types of patients who are considered appropriate candidates for weaning. Thus, the measure might be vulnerable to gaming. Finally, panelists agreed that the ability to wean successfully (however it is defined) differs widely across patients, so adequate risk adjustment is required to avoid creating incentives for facilities to avoid certain types of patients. There was general consensus that a first step in moving toward an outcome measure for ventilator weaning might be use of a structural measure such as whether the facility had a protocol in place to guide ventilator weaning. Panelists also supported the idea of using a process measure such as time to first spontaneous breathing trial.

Functional improvement Panelists agreed that the goal for some LTCH patients is to improve functional status. Functional status can be measured with a patient assessment tool. Here, too, panelists cautioned that care needs to be taken to clearly identify the types of cases to be included in the denominator; otherwise, the measure might be vulnerable to gaming. Including all of an LTCH’s patients in the denominator, however, might create incentives for providers to avoid certain types of patients, since not all LTCH patients are likely candidates for functional improvement.

Mortality rate With adequate risk adjustment, in-facility mortality and mortality within 30 days of discharge could also be used as gross measures of LTCH quality. Some studies of LTCH outcomes also have examined one-year survival rates.

Patient safety measures

Panelists were asked what patient safety issues are prevalent within the LTCH environment and which safety measures CMS could feasibly track. The results of the panel discussion are summarized in Table 10-7 (p. 250).

Health-care-associated infections Panelists unanimously agreed that infections—including central-line infections, ventilator-associated pneumonia, and urinary tract infections—were a primary concern. LTCH patients are very susceptible to infection due to the presence of diabetes, advanced age, exposure to broad spectrum antibiotics that can result in antibiotic resistance, indwelling catheters and feeding tubes, and ventilation by tracheostomy (Scheinhorn et al. 2007).

Decubitus ulcers Several panelists also noted that LTCH patients, because of the nature of their illness and the overall level of debility, are at very high risk for pressure ulcers. Use of this measure would require a “present on admission” indicator to avoid disincentives to admit patients with pressure ulcers.

Falls causing injury Panelists were careful to point out that, in a rehabilitative environment, controlled falls during therapy are to be expected. However, falls causing injury are an indication of poor quality of care.

Polypharmacy Polypharmacy—the use of multiple medications by a patient—was identified as a significant problem for many LTCH patients, affecting both patient safety and quality of life and the effectiveness of care. Panelists reported that many patients are admitted to LTCHs on many duplicative and even contraindicated prescription drugs. While multiple medications often are required to treat complex medical conditions, the use of multiple medications can increase patients’ risk of adverse drug reactions—as well as falls, delirium, cognitive decline, and depression—and can delay recovery by extending the period of immobility. Panelists agreed that LTCHs must critically evaluate patients’ medications on admission to the facility to ensure optimal drug therapy. A measure of the number of medications patients are prescribed was suggested in order to measure outliers.¹⁹ Panelists also suggested using a separate

**TABLE
10-7**

Prevalent patient safety issues in LTCHs and potential measures

Patient safety issue	Potential measures
Infections	
Central-line infections	Central-line infections per 1,000 patient days
Ventilator-associated pneumonia	Ventilator-associated pneumonia per 1,000 patient days
Urinary tract infections (UTIs)	UTIs per 1,000 patient days
Pressure ulcers	Pressure ulcers per 1,000 patient days
Falls with injury	Falls with injury per 1,000 patient days
Polypharmacy	Average number of medications per patient (to identify outliers) Medication evaluation Contraindicated medication use Medication errors per 1,000 patient days Adverse medication reactions per 1,000 patient days Delirium rate
Facility clinical staffing	Staffing measures (e.g., RNs per patient day, RTs per patient day, annual turnover rate of direct care staff, physician staffing 24/7)
Use of electronic health records (EHRs)	Presence of EHR in facility; meaningful use of EHR in patient care workflows

Note: LTCH (long-term care hospital), RN (registered nurse), RT (respiratory therapist).

Source: MedPAC panel on LTCH quality measures, October 2010.

measure to evaluate the occurrence of adverse reactions to medications and contraindicated medications (e.g., Beer’s criteria).

Facility clinical staffing and use of electronic health records Panelists agreed that ensuring patient safety necessitated a higher level of staffing than in other long-term care settings as well as a higher level of expertise among staff. Low staff turnover was also considered to be optimal. Participants stressed that the ratio of registered nurses to patients was more important than the ratio of all staff (or even all nurses) to patients. The ratio of respiratory therapists to patients was also thought to be important.

Panelists also discussed the importance of having a physician in the LTCH at all times. Panelists overwhelmingly agreed that physician presence in the LTCH was vital to preventing readmissions to the acute care hospital and to ensuring an overall high quality of care. Participants noted that smaller LTCHs, lacking

economies of scale, might have more difficulty paying for physician coverage on a 24-hour basis.

Panelists also suggested that the adoption and use of electronic health records (EHRs) may help improve the quality of care delivered to patients and increase the efficiency of care delivery. Participants discussed using two EHR measures: structural (is an EHR in place) and process (is the EHR integrated into the facility’s workflow—i.e., is it being meaningfully used).²⁰

Process measures affecting quality of life

In addition to quality-of-care measures, the panel discussed the importance of measuring quality of life for patients. Such measures might ensure that facilities engage patients and their families in advanced-care planning and end-of-life discussions. Panelists mentioned the need for patient activities. Panelists also discussed depression in LTCH patients and its effect on quality of life. While all agreed that proper assessment and treatment were essential, some participants pointed out the difficulty in

Building on long-term care hospitals' existing internal quality measures

Panelists agreed that many, if not most, long-term care hospitals (LTCHs) already collect information internally to measure quality and that a reasonable short-term step could be to build on these internal efforts to develop a small but consistent set of measures that could be used for all LTCHs. Some LTCHs go beyond internal quality measurement to report quality measures to central bodies, such as professional associations and corporate offices. Typical measures currently being collected include:

- use of restraints (physical and chemical)
- pain management (patient reported)
- line-related bloodstream infections
- hospital-acquired pressure wounds
- falls and falls with injury
- ventilator weaning rate
- mortality rate
- ventilator-associated pneumonia rate
- discharge to acute care hospital (readmission)
- discharge to community
- discharge to skilled nursing facility
- length of stay
- urinary tract infection rate in patients with catheters
- deep vein thrombosis rate ■

diagnosing depression in critically ill patients and noted that, given the length of time needed for antidepressant medication to work, it would be difficult for LTCHs to measure the effectiveness of treatment.

Finally, panelists discussed the importance of pain management to quality of life but expressed concern about how Medicare might measure it. Some participants also pointed out that there can be a trade-off between management of pain and management of side effects. Some pain might be unavoidable in order to reduce the side effects of medications.

Risk adjustment

Perhaps surprisingly, the panel's consensus was that there is minimal need for risk adjustment for some of the suggested LTCH quality measures, particularly for outcome measures with very low incidence. They suggested that the growing use of the "present on admission" indicator will obviate the need for risk adjustment for measures of health-care-associated conditions, such as central-line infections and severe decubitus ulcers. However, for metrics that depend on patient characteristics, such as ventilator weaning and

mortality rates, adequate risk adjustment is needed so as not to create incentives for providers to avoid certain types of patients.

Data collection for quality measurement

The potential burden on providers and CMS in collecting, reporting, and analyzing data needed for quality measurement is an issue about which the Commission has expressed concerns for a number of years (Medicare Payment Advisory Commission 2005). To minimize the burden of collection and analysis, when possible, quality measures should be based on data that are already collected (see text box). The need to collect additional information should be balanced against the information's value to the provider, to patients, and to the Medicare program. In the short term, adding new information to claims and other administrative data may be burdensome, but in the longer run this approach will be easier than other methods, such as manually extracting data from medical records. As providers become accustomed to collecting and reporting information to CMS, and CMS establishes a system for receiving and analyzing the data, the data burden should lessen and the reliability of the data should improve.

The LTCH panel noted that it would be most feasible to include in the LTCH “starter set” those measures that can be calculated from administrative data that Medicare already receives, such as LTCH claims and the Medicare Provider and Analysis Review file data. An expanded set of measures could be introduced when CMS implements the Continuity Assessment Record and Evaluation (CARE) tool that will be designed to measure the health

and functional status of Medicare patients across post-acute care settings. The panelists thought new LTCH quality measures should be developed and implemented in conjunction with the CARE tool rather than be based on an interim assessment tool or medical record abstraction (the most resource intensive of all data collection methods). ■

Endnotes

- 1 The Medicare, Medicaid, and SCHIP Extension Act of 2007 (MMSEA) also requires LTCHs to have: a patient review process that screens patients to ensure appropriateness of admission and continued stay, active physician involvement with patients during their treatment with physician on-site availability on a daily basis, and interdisciplinary treatment teams of health care professionals. However, CMS has not yet issued regulations conforming to the law.
- 2 More information on the prospective payment system for LTCHs is available at: http://medpac.gov/documents/MedPAC_Payment_Basics_10_LTCH.pdf.
- 3 The amount Medicare pays to LTCHs for an SSO case is the lowest of: 100 percent of the cost of the case, 120 percent of the MS–LTC–DRG specific per diem amount multiplied by the patient’s length of stay, the full MS–LTC–DRG payment, or a blend of the acute care PPS amount for the DRG and 120 percent of the MS–LTC–DRG per diem payment amount. Effective July 2007, CMS implemented a different standard for the very shortest SSO cases, which would have further reduced payments for these cases. The MMSEA, as amended by the American Recovery and Reinvestment Act of 2009 and the Patient Protection and Affordable Care Act of 2010, prohibits the Secretary from applying the very SSO standard until December 29, 2012. SSO cases that are very costly may qualify for high-cost outlier payments. About 32 percent of all LTCH discharges are SSOs, but this share varies across types of cases.
- 4 SSOs are identified as those patients with a length of stay less than or equal to five-sixths of the geometric mean length of stay for the patient’s MS–LTC–DRG. A geometric mean statistic is useful for analyzing data that are skewed.
- 5 Kahn and colleagues found that the share of Medicare critical acute care hospitalizations ending in transfer to skilled nursing facilities (SNFs) and inpatient rehabilitation facilities (IRFs) also has increased, while the percentage of critical acute care hospitalizations ending in discharge to the home has decreased. Among critical acute care patients receiving intensive ventilator support, discharges to SNFs and IRFs have remained relatively constant, while discharges to LTCHs have increased (Kahn et al. 2010).
- 6 In the Commission’s analysis, episodes did not include the costs of readmission to the acute care hospital. That could have resulted in an understatement of the average costs of patients who did not use LTCHs, because these patients were more likely than LTCH users to be readmitted to the hospital. However, we compared LTCH users and nonusers without readmissions and found similar results: LTCH users without readmissions cost Medicare more for the total episode than patients without readmissions who used alternative settings. Among patients most likely to use LTCHs, we found a positive but statistically insignificant difference in total episode spending between LTCH users and nonusers without readmissions.
- 7 About 80 percent of Medicare LTCH patients are admitted from an acute care hospital. The remaining 20 percent do not have a preceding acute care hospital stay.
- 8 CMS implemented the 25 percent rule to discourage acute care hospitals from unbundling services covered under the inpatient PPS and to discourage inappropriate payments under the LTCH PPS (Centers for Medicare & Medicaid Services 2004).
- 9 HWHs and satellites are paid LTCH PPS rates for patients admitted from the host acute care hospital until the percentage of discharges from the host hospital exceeds the threshold for that year. After the threshold is reached, the LTCH is paid the lesser of the LTCH PPS rate or an amount equivalent to the acute care hospital PPS rate for patients discharged from the host acute care hospital. Patients from the host hospital who are outliers under the acute hospital PPS before their discharge to the HWH or satellite do not count toward the threshold and continue to be paid at the LTCH PPS rate even if the threshold has been reached.
- 10 This inequity is exacerbated by CMS’s interpretation of Section 114 of the MMSEA, under which different thresholds are applied to HWHs and satellite LTCHs depending on how long they have been operating.
- 11 The hospital industry generally uses the term “step-down unit” to describe an acute care hospital unit for patients who need more monitoring than is typically provided in a medical or surgical unit but who do not require the intensity of care provided in an ICU.
- 12 New LTCHs often are located in states without certificate-of-need programs.
- 13 The Medicare revenue share varies across different types of LTCHs. For-profit LTCHs had an aggregate Medicare share of 60 percent in 2009 compared with 36 percent in not-for-profits. The share of revenues from Medicare also differs across geographic regions, ranging from a high of 69 percent in the west–south–central region (Arkansas, Louisiana, Oklahoma, and Texas) to a low of 28 percent in the mid-Atlantic region (New Jersey, New York, and Pennsylvania).

- 14 As this report went to press, Kindred Healthcare announced plans to acquire RehabCare Group for \$900 million in cash and stock. The combined company will be one of the largest post-acute care companies in the U.S., with 118 LTCHs and 226 nursing and rehabilitation facilities.
- 15 The law treats “grandfathered” facilities (those that were operating as of September 30, 1999) differently depending on whether the facility is a satellite or an HWH. Grandfathered satellites continued to operate under the 75 percent threshold established for rate year 2008, transitioning to a 50 percent threshold in 2009 and a 25 percent threshold in 2010. By comparison, grandfathered HWHs have no threshold applied under the law.
- 16 CMS reduced the update to the LTCH base payment rate in fiscal years 2010 and 2011 to offset, in part, payment increases due to documentation and coding improvements between 2007 and 2009.
- 17 Many new LTCHs operate at a loss for a period of time after opening. For this analysis of high- and low-margin LTCHs, we examined only LTCHs that submitted valid cost reports in both 2008 and 2009.
- 18 LTCHs are paid outlier payments for patients who are extraordinarily costly. High-cost outlier cases are identified by comparing their costs with a threshold that is the MS-LTC-DRG payment for the case plus a fixed loss amount (in 2011 the fixed loss amount is \$18,785). Medicare pays 80 percent of the LTCH’s costs above the threshold.
- 19 Panelists noted that some patients, particularly post-transplant patients and patients in renal failure, require multiple medications to appropriately treat their conditions.
- 20 ARRA provided payment incentives to encourage short-term acute care hospitals to adopt EHR technology. Hospitals that meet specified criteria indicating the meaningful use of EHR technology will receive payments beginning in fiscal year (FY) 2011 and continuing each year until FY 2017. The Commission estimates that the average smaller short-term acute care hospital (with fewer than 400 beds) will receive payments of about \$1.6 million in FY 2011 if meaningful use criteria are met. LTCHs are not eligible for these payments.

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CHAPTER

11

Hospice

R E C O M M E N D A T I O N

11 The Congress should update the payment rates for hospice for fiscal year 2012 by 1 percent.

COMMISSIONER VOTES: YES 14 • NO 0 • NOT VOTING 1 • ABSENT 2

.....
(For additional recommendations on improving the hospice payment system, see text box on pp. 263–265.)

Hospice

Chapter summary

The Medicare hospice benefit covers palliative and support services for beneficiaries with a life expectancy of six months or less who choose to enroll in the benefit. In 2009, nearly 1.1 million Medicare beneficiaries received hospice services from nearly 3,500 providers, and Medicare expenditures totaled \$12 billion.

Assessment of payment adequacy

The indicators of payment adequacy for hospices, discussed below, are generally positive.

Beneficiaries' access to care—Hospice use among Medicare decedents has grown substantially in recent years, suggesting greater awareness of and access to hospice services. In 2009, hospice use increased across almost all demographic and beneficiary characteristics examined. However, it remained lower among racial and ethnic minorities.

- **Capacity and supply of providers**—The supply of hospices increased 50 percent between 2000 and 2009, growing on average 5 percent per year from 2000 to 2008, and 3 percent from 2008 to 2009. For-profit providers accounted for most of the increase in the number of hospices.
- **Volume of services**—Use of Medicare hospice services continues to increase, with growth in both the number of hospice users and the average

In this chapter

- Are Medicare payments adequate in 2011?
.....
- How should Medicare payments change in 2012?
.....

length of stay. In 2009, 42 percent of Medicare decedents used hospice, up from 40 percent in 2008 and 23 percent in 2000. Between 2000 and 2009, average length of stay grew from 54 days to 86 days, reflecting longer stays among patients with the longest stays.

Quality of care—At this time, we do not have sufficient data to assess the quality of hospice care provided to Medicare beneficiaries, as information on quality of care is very limited. The Patient Protection and Affordable Care Act of 2010 mandates that CMS publish quality measures in 2012. Beginning in fiscal year 2014, hospices that do not report quality data will receive a 2 percentage point reduction in their annual payment update.

Providers' access to capital—Hospices are not as capital intensive as some other provider types because they do not require extensive physical infrastructure. The continued influx of new for-profit freestanding providers, and modest growth in nonprofit freestanding providers, suggests that access to capital is adequate. Hospital-based and home-health-based hospices have access to capital through their parent providers.

Medicare payments and providers' costs—The aggregate Medicare margin, which is an indicator of the adequacy of Medicare payments relative to costs, was 5.1 percent in 2008. The projected margin for 2011 is 4.2 percent. These margin estimates exclude nonreimbursable costs associated with bereavement services and volunteers (at most 1.5 percent and 0.3 percent of total costs, respectively). ■

Background

Medicare began offering a hospice benefit in 1983, pursuant to the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA). The benefit covers palliative and support services for terminally ill beneficiaries who have a life expectancy of six months or less if the terminal illness follows its normal course. A broad set of services are included, such as nursing care; physician services; counseling and social worker services; home health aide (also referred to as hospice aide) and homemaker services; short-term inpatient care (including respite care); drugs and biologicals for symptom control; home medical equipment; physical, occupational, and speech therapy; bereavement services for the patient's family; and other services for palliation of the terminal condition. In 2009, nearly 1.1 million Medicare beneficiaries received hospice services and Medicare expenditures totaled \$12 billion.

Beneficiaries must "elect" the Medicare hospice benefit; in so doing, they agree to forgo Medicare coverage for intensive conventional treatment for the terminal illness. Medicare continues to cover items and services unrelated to the terminal illness. A written plan of care must be established and maintained by the attending physician, the medical director, or another hospice physician and by an interdisciplinary group for each person admitted to a hospice program. The plan of care must identify the services to be provided (including management of discomfort and symptom relief) and describe the scope and frequency of services needed to meet the patient's and family's needs.

Beneficiaries elect hospice for defined benefit periods. Under current policy, the first hospice benefit period is 90 days. For a beneficiary to initially elect hospice, two physicians (a hospice physician and the beneficiary's attending physician, if any) must certify that the beneficiary has a life expectancy of six months or less if the illness runs its normal course. If the patient's terminal illness continues to engender the likelihood of death within six months, the patient can be recertified for another 90 days. After the second 90-day period, the patient can be recertified for an unlimited number of 60-day periods, as long as he or she remains eligible.¹ For recertification, only the hospice physician must certify that the beneficiary's life expectancy is six months or less. Beneficiaries can transfer from one hospice to another once during a hospice election period and can disenroll from hospice at any time.

In recent years, Medicare spending for hospice care increased dramatically. Spending reached \$12 billion in calendar year 2009, quadrupling since 2000. This spending increase was driven by greater numbers of beneficiaries electing hospice and by longer stays among hospice patients with the longest stays.

Medicare payment for hospice

The Medicare program pays a daily rate to hospice providers for each day a beneficiary is enrolled in hospice. The hospice assumes all financial risk for costs and services associated with care related to the patient's terminal illness. The hospice provider receives payment for every day a patient is enrolled, regardless of whether the hospice visited the patient each day. This payment design is intended to encompass not only the cost of visits but also other costs a hospice incurs, such as on-call services, care planning, drugs and medical equipment, supplies related to the patient's terminal condition, and patient transportation between sites of care specified in the plan of care.

Payments are made according to a fee schedule that has base payment amounts for four categories of care: routine home care, continuous home care, inpatient respite care, and general inpatient care (Table 11-1, p. 262). A hospice is paid the routine home care rate (\$147 per day in 2011) for each day the patient is enrolled in hospice, unless the hospice provides continuous home care, inpatient respite care, or general inpatient care. Routine home care accounts for more than 95 percent of hospice care days. The Medicare payment rates for hospice are updated annually by the inpatient hospital market basket index.² The payment methodology and the base rates for hospice care have not been recalibrated since initiation of the benefit in 1983.

The hospice daily payment rates are adjusted geographically to account for differences in wage rates among local markets. Each category of care's base rate has a labor share, which is adjusted by the hospice wage index for the location where care is furnished and the result is added to the nonlabor portion. From 1983 to 1997, Medicare adjusted hospice payments with a 1983 wage index based on 1981 Bureau of Labor Statistics data. In fiscal year 1998, CMS began using the most current hospital wage index to adjust hospice payments and applied a budget-neutrality adjustment each year to make aggregate payments equivalent to what they would have been under the 1983 wage index. This budget-neutrality

**TABLE
11-1**

Medicare hospice payment categories and rates, FY 2011

Category	Description	Base payment rate
Routine home care	Home care provided on a typical day	\$147 per day
Continuous home care	Home care provided during periods of patient crisis	\$35.66 per hour
Inpatient respite care	Inpatient care for a short period to provide respite for primary caregiver	\$152 per day
General inpatient care	Inpatient care to treat symptoms that cannot be managed in another setting	\$652 per day

Note: FY (fiscal year). Payment for continuous home care (CHC) is an hourly rate for care delivered during periods of crisis if care is provided in the home for 8 or more hours within a 24-hour period beginning at midnight. A nurse must deliver more than half of the hours of this care to qualify for CHC-level payment. The minimum daily payment rate at the CHC level is \$285 per day (8 hours at \$35.66 per hour); maximum daily payment at the CHC level is \$856 per day (24 hours at \$35.66 per hour).

Source: CMS Manual System Pub 100-04 Medicare Claims Processing, Transmittal 2004, "Update to Hospice Payment Rates, Hospice Cap, Hospice Wage Index and the Hospice Pricer for FY 2011." July 23, 2010.

adjustment increased Medicare payments to hospices by about 4 percent. In fiscal year 2010, CMS began phasing out the budget-neutrality adjustment over seven years. It was reduced by 0.4 percent in 2010 and by an additional 0.6 percent in 2011; it will be reduced by an additional 0.6 percent each subsequent year, until the budget-neutrality adjustment is eliminated entirely in fiscal year 2016. The Commission's update recommendation for 2012 does not affect the phase-out of the wage index budget-neutrality adjustment.

Beneficiary cost sharing for hospice services is minimal. For prescriptions, hospices may charge 5 percent coinsurance (not to exceed \$5) for each prescription furnished outside the inpatient setting. For inpatient respite care, beneficiaries may be charged 5 percent of Medicare's respite care payment per day. In practice, hospices do not generally charge or collect these copays from Medicare beneficiaries. Given that hospice is one of the only areas in the Medicare program with minimal or no cost sharing and given that hospice length of stay has increased substantially for patients with the longest stays, in the future the Commission may explore the potential for modest cost sharing within the hospice benefit. (For a more complete description of the hospice payment system, see http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_hospice.pdf.)

Commission's prior recommendations

The Commission's analyses of the hospice benefit in the June 2008 and March 2009 reports found that the structure

of Medicare's hospice payment system makes very long stays in hospice more profitable for providers than shorter stays, which may have led to inappropriate use of the benefit among some hospices (Medicare Payment Advisory Commission 2008, Medicare Payment Advisory Commission 2009). We also found that the benefit lacks adequate administrative and other controls to check the incentives for long stays in hospice and that CMS lacks data vital for effective management of the benefit. In March 2009, the Commission made recommendations to reform the hospice payment system, to ensure greater accountability in use of the hospice benefit, and to improve data collection and accuracy (see text box). Since that time, additional data have become available on hospice visit patterns across episodes of care. These data confirm prior findings and further support the need for payment system reform. A discussion of our analysis of these additional data sources can be found in the online appendix to this chapter (<http://www.medpac.gov>).

The Patient Protection and Affordable Care Act of 2010 (PPACA) included a number of provisions related to Medicare hospice services, including several policies consistent with some of the Commission's recommendations, particularly in the areas of greater accountability and data collection. PPACA also gives CMS the authority to revise in a budget-neutral manner the methodology for determining hospice payment rates for routine home care and other services as the Secretary determines appropriate beginning no earlier than fiscal year 2014. PPACA includes additional

March 2009 Commission recommendations on hospice

In the Commission's June 2008 and March 2009 reports, a number of trends and issues were identified that raised concern that the structure of the hospice payment system creates financial incentives for very long stays and that CMS does not have adequate administrative controls to check these incentives and ensure that providers comply with the benefit's eligibility criteria. These reports found:

- a substantial increase in the number of hospices, driven almost entirely by growth in for-profit providers;
- a substantial increase in average length of stay due to increased lengths of stay among patients with the longest stays;
- a positive correlation between hospice profit margins and average length of stay (i.e., profitability increases as average length of stay increases);
- anecdotal reports that some hospices admit patients who do not meet the Medicare hospice eligibility criteria (a life expectancy of six months or less if the disease runs its normal course) obtained from a discussion with an expert panel of hospice industry executives convened by the Commission; and

- focused efforts by some hospices to enroll nursing home residents, a population that tends to have conditions associated with long hospice stays, as well as anecdotal reports of questionable relationships between some nursing facilities and hospices.

The Commission's examination of the hospice payment system has shown that long stays in hospice are more profitable for providers than short stays. These analyses have found that hospice visits tend to be more frequent at the beginning and end of a hospice episode and less frequent in the intervening period. The Medicare payment rate, which is constant over the course of the episode, does not take into account the different levels of effort that occur during different periods within an episode. As a result, long hospice stays, which generally have a lower average visit intensity over the course of an episode, are more profitable than short stays. The incentives in the current hospice payment system for long stays may have led to inappropriate use of the benefit among some providers. To address these problems, the Commission made recommendations in March 2009 to reform the hospice payment system, to ensure greater accountability in use of the hospice benefit (which included two parts, increased accountability standards for providers and more Office of Inspector General (OIG) investigations), and to

(continued next page)

hospice provisions, such as a productivity adjustment to the hospice annual update and an additional market basket reduction beginning in fiscal year 2013, hospice quality data reporting beginning in fiscal year 2014, and a demonstration project to test concurrent hospice and conventional care.

Medicare hospice payment limits ("caps")

The Medicare hospice benefit was designed to give beneficiaries a choice in their end-of-life care, allowing them to forgo intensive conventional treatment (often in inpatient settings) and die at home, with family, and according to their personal preferences. The inclusion of the Medicare hospice benefit in TEFRA was based in

large part on the premise that the new benefit would be a less costly alternative to conventional end-of-life care (Government Accountability Office 2004, Hoyer 2007). To achieve this outcome, when the Congress established the hospice benefit it included two limitations, or "caps," on payments to hospices. (For a discussion of the cost of hospice care relative to conventional care at the end of life, see the Commission's June 2008 report).

The first cap limits the number of days of inpatient care a hospice may provide to not more than 20 percent of its total Medicare patient care days. This cap is rarely exceeded, and when it is, any inpatient days provided in excess of the cap are reimbursed at the routine home care payment rate.

March 2009 Commission recommendations on hospice (cont.)

improve data collection and accuracy. The Congress or CMS has adopted policies consistent with several of these recommendations.

Several policies to increase provider accountability have been adopted. Effective October 2009, CMS adopted a requirement that all certifications and recertifications include a brief physician narrative explaining the clinical basis for the patient's prognosis. Beginning in January 2011, the Patient Protection and Affordable Care Act of 2010 (PPACA) requires a hospice physician or nurse practitioner to have a face-to-face visit with a patient before recertification of the patient for the third benefit period (which typically begins after 180 days) and any subsequent benefit periods. In addition, as of January 2011, CMS is required to perform a medical review of claims for patients with stays exceeding 180 days for hospices with many long-stay patients.

In the area of data collection, CMS in January 2010 expanded its data-reporting requirements for hospice claims consistent with the Commission recommendation to include the length of visits in 15-minute increments as well as additional types of visits such as physical, speech, and occupational therapist visits. PPACA mandated that CMS begin collecting additional data to inform hospice payment system reform as the Secretary determines appropriate not later than January 1, 2011.

Additional steps have been taken in the areas of payment reform and OIG studies. Because it is unclear

how these initiatives will evolve, we are reprinting our recommendations below.

The Congress should direct the Secretary to change the Medicare payment system for hospice to:

- **have relatively higher payments per day at the beginning of the episode and relatively lower payments per day as the length of the episode increases,**
- **include a relatively higher payment for the costs associated with patient death at the end of the episode, and**
- **implement the payment system changes in 2013, with a brief transitional period.**

These payment system changes should be implemented in a budget-neutral manner in the first year.

Compared with the current hospice payment system, this payment model would result in a much stronger relationship between Medicare payments and hospices' level of effort in providing care throughout an episode and promote stays of a length consistent with hospice as an end-of-life benefit.

Under PPACA, the Congress gave CMS the authority to revise, in a budget-neutral manner, the hospice payment system for routine home care and other services as the Secretary determines appropriate—not earlier than fiscal

(continued next page)

The second, more visible cap limits the aggregate Medicare payments that an individual hospice can receive. It was implemented at the outset of the hospice benefit to ensure that Medicare payments did not exceed the cost of conventional care for patients at the end of life. Under the cap, if a hospice's total Medicare payments exceed its total number of Medicare beneficiaries first electing hospice multiplied by the cap amount (\$22,386.15 in 2008), it must repay the excess to the program.^{3,4} This cap is not applied individually to the payments received for

each beneficiary, but rather to the total payments across all Medicare patients admitted to the hospice in the cap year. The number of hospices exceeding the average annual payment cap has historically been low, but we have found that increases in the number of hospices and increases in very long stays have resulted in more hospices exceeding the cap. With rapid growth in Medicare hospice spending in recent years, the hospice cap is the only significant fiscal constraint on the growth of program expenditures for hospice care (Hoyer 2007).

March 2009 Commission recommendations on hospice (cont.)

year 2014. The statute indicates that such revisions may include adjustments to the per diem payments to reflect changes in the resource intensity of services throughout a hospice episode but does not mandate such an approach. CMS is required to consult with hospices and the Commission on revisions to the payment system.

The Secretary should direct the Office of Inspector General to investigate:

- **the prevalence of financial relationships between hospices and long-term care facilities such as nursing facilities and assisted living facilities that may represent a conflict of interest and influence admissions to hospice,**
- **differences in patterns of nursing home referrals to hospice,**
- **the appropriateness of enrollment practices for hospices with unusual utilization patterns (e.g., high frequency of very long stays, very short stays, or enrollment of patients discharged from other hospices), and**
- **the appropriateness of hospice marketing materials and other admissions practices and potential correlations between length of stay and deficiencies in marketing or admissions practices.**

Questions have been raised about the appropriateness of certain practices among some hospices, including relationships between hospices and long-term care facilities and enrollment and marketing practices. A comprehensive review of these relationships and practices by the OIG would provide greater understanding of the nature of these relationships and practices and the degree to which inappropriate behavior may be occurring. In addition, some hospice providers have unusual utilization patterns for their patients (regardless of the site of care) such as a high frequency of very long stays or unusual discharge practices, and a closer examination of these hospices' admission and discharge practices by the OIG would bring more accountability to the benefit.

The OIG work plan for 2011 includes studies examining several issues related to hospice use in nursing facilities. One OIG study will focus on nursing facilities with high hospice utilization and will examine hospice use patterns, relationships between nursing facilities and hospices, and marketing materials. Another OIG study will focus on services hospices provide to nursing facility patients, including hospice-provided aide services. This study also intends to look at coordination of care between nursing facilities and hospices, contractual relationships between these providers, and the appropriateness of general inpatient care. ■

Are Medicare payments adequate in 2011?

To address whether payments for the current year (2011) are adequate to cover the costs efficient providers incur and how much providers' costs should change in the coming year (2012), we examine several indicators of payment adequacy. Specifically, we assess beneficiaries' access to care by examining the capacity and supply of hospice providers and changes over time in the volume of services provided, quality of care, providers' access to capital, and the relationship between Medicare's payments and providers' costs. Overall, the Medicare payment

adequacy indicators for hospice providers are positive. Unlike our assessments for other providers, we could not use quality of care as a payment adequacy indicator, as information on hospice quality is generally not available.

Beneficiaries' access to care: Use of hospice continues to increase

Hospice use among Medicare decedents has grown substantially in recent years, suggesting increased awareness of and access to hospice services. In 2009, about 42 percent of Medicare decedents used hospice, up from almost 23 percent in 2000 (Table 11-2, p. 266). From 2008 to 2009, the proportion of Medicare decedents

**TABLE
11-2****Use of hospice continues to increase****Percent of Medicare decedents who used hospice**

	2000	2006	2007	2008	2009	Average annual percentage point change, 2000–2008	Percentage point change, 2008–2009
All beneficiaries	22.9%	37.0%	38.9%	40.1%	42.0%	2.2%	1.9%
FFS beneficiaries	21.5	36.2	38.0	39.2	40.9	2.2	1.7
MA beneficiaries	30.9	41.3	42.9	44.0	46.0	1.6	2.0
Dual eligibles	17.5	32.5	34.5	35.9	37.5	2.3	1.6
Nondual eligibles	24.5	38.4	40.3	41.5	43.4	2.1	1.9
Age (in years)							
<65	17.0	23.7	24.5	25.1	26.0	1.0	0.9
65–74	25.4	34.2	35.6	36.2	37.3	1.4	1.1
75–84	24.2	38.1	40.1	41.2	43.1	2.1	1.9
85+	21.4	41.0	43.5	45.4	48.0	3.0	2.6
Race/ethnicity							
White	23.8	38.5	40.5	41.8	43.7	2.3	1.9
African American	17.0	28.2	29.9	30.8	32.5	1.7	1.7
Hispanic	21.1	31.2	32.6	32.9	34.7	1.5	1.8
Asian American	15.2	21.9	22.9	24.5	26.0	1.2	1.5
Native North American	13.0	27.5	28.8	29.8	29.7	2.1	–0.1
Gender							
Male	22.4	34.1	35.9	36.8	38.5	1.8	1.7
Female	23.3	39.4	41.5	43.0	45.0	2.5	2.0
Beneficiary location							
Urban	29.4	38.5	40.4	41.7	43.5	1.5	1.8
Rural, adjacent to urban	19.2	32.7	35.0	36.2	38.0	2.1	1.8
Rural, nonadjacent to urban	16.7	28.6	30.8	31.5	33.6	1.9	2.1

Note: FFS (fee-for-service), MA (Medicare Advantage). Beneficiary location reflects the beneficiary's county of residence grouped into three categories (urban, rural adjacent to urban, and rural nonadjacent to urban) based on an aggregation of the rural-urban continuum codes.

Source: MedPAC analysis of data from the denominator file and the Medicare Beneficiary Database from CMS.

using hospice grew from about 40 percent to 42 percent. While hospice use varied by beneficiary characteristics (i.e., enrollment in fee-for-service (FFS) and managed care, dual and nondual eligibles, age, gender, race, urban and rural residence), it increased substantially across all beneficiary groups between 2000 and 2008 and increased in 2009 for all groups except Native North American beneficiaries.

Use of hospice is slightly more frequent among beneficiaries in Medicare Advantage than FFS, although differences in hospice use rates have narrowed over time. In 2000, in rounded figures, 22 percent of Medicare FFS decedents used hospice compared with 31 percent of Medicare Advantage decedents. By 2009, these use rates rose to 41 percent of Medicare FFS decedents and 46 percent of Medicare Advantage decedents.

Hospice use also varies by other beneficiary characteristics. In 2009, a slightly smaller proportion (38 percent) of Medicare decedents who were dually eligible for Medicare and Medicaid used hospice compared with the rest of Medicare decedents (43 percent). Hospice use was more common among older beneficiaries, with use rates ranging from 26 percent among Medicare decedents under age 65 to 48 percent among Medicare decedents age 85 or older. Female beneficiaries were also more likely than male beneficiaries to use hospice, which partly reflects the longer average life span among women than men and greater hospice use among older beneficiaries.

Table 11-2 also shows differences in hospice use by racial and ethnic groups. As of 2009, hospice use was highest among white Medicare decedents followed by Hispanic decedents, African American decedents, Native North American decedents, and Asian American decedents. Hospice use grew substantially among all these groups between 2000 and 2008. Hospice use continued to grow in 2009 among all groups except Native North Americans. The hospice use rate among Native North American Medicare decedents, which increased from 13 percent to almost 30 percent between 2000 and 2008, declined slightly (one-tenth of a percentage point) in 2009. Despite a substantial increase in hospice use over the last decade for all racial and ethnic groups, differences in hospice use across racial and ethnic groups persist but are not fully understood. Researchers examining this issue have cited a number of possible factors, such as cultural or religious beliefs, preferences for end-of-life care, socioeconomic factors, disparities in access to care or information about hospice, and mistrust of the medical system (Cohen 2008, Crawley 2000).

Hospice use is more prevalent in urban than in rural areas, although use has grown in both areas (as defined by the rural–urban continuum code for the beneficiary’s county of residence). As shown in Table 11-2, between 2000 and 2009, hospice use grew from 29 percent to almost 44 percent for Medicare decedents in urban counties, from 19 percent to 38 percent in rural counties that are adjacent to urban ones, and from almost 17 percent to almost 34 percent in rural counties that are not adjacent to urban ones. These three categories of urban and rural counties are an aggregation of the nine rural–urban continuum codes that distinguish counties by both urban and rural and population size. In all nine county categories (from the largest urban to the most rural), hospice use rates among Medicare decedents grew over the last decade. For example, among the least densely populated rural counties

(population of less than 2,500) that are not adjacent to urban ones, hospice use among Medicare decedents increased between 2000 and 2009 from 14 percent to 31 percent (not shown in Table 11-2).

One driver of increased hospice use over the last decade has been substantial growth in hospice election by patients with noncancer diagnoses, as there has been increased recognition that hospice can appropriately care for such patients. Patients with noncancer diagnoses accounted for 69 percent of all hospice users in 2008, up from 47 percent in 1998 (Centers for Medicare & Medicaid Services 2009). This greater share of hospice patients with noncancer diagnoses reflects substantial growth in the enrollment of such patients. For example, between 1998 and 2008, the number of hospice users with debility increased from just over 8,500 to nearly 107,000, and the number with either Alzheimer’s disease or non-Alzheimer’s dementia grew from about 28,000 to 174,000 (Centers for Medicare & Medicaid Services 2009).

Capacity and supply of providers: Supply of hospices continues to grow, driven by growth in for-profit providers

The number of hospice providers has grown substantially over the last decade. From 2000 to 2009, the total number of hospices increased 50 percent, from just over 2,300 to nearly 3,500 (Table 11-3, p. 268). The most rapid growth occurred between 2003 and 2007, with an average annual growth rate of about 7 percent. The number of providers grew an additional 4 percent in 2008 and 3 percent in 2009. The somewhat slower growth in the last few years may in part be influenced by guidance CMS issued in 2007 to state survey and certification agencies that placed surveys of hospices applying to be new Medicare providers (and surveys of certain other providers) in the lowest tier of their workload priorities.⁵

For-profit hospices account for most of the growth in the number of hospices. Overall, the number of for-profit hospices grew 142 percent from 2000 to 2009, while the number of nonprofits declined 1 percent and hospices with government or other ownership structures increased 27 percent over this time period. From 2000 to 2008, the number of for-profit hospices grew on average 11 percent per year and an additional 5 percent in 2009. In comparison, the number of nonprofit hospices declined slightly between 2000 and 2008 and increased 1 percent in 2009. Among nonprofit hospices, the number of freestanding providers (not classified separately in Table 11-3) increased modestly over the last decade, with growth

**TABLE
11-3****Total number of hospices rose substantially between 2000 and 2009, driven by growth in for-profit hospices**

Category	2000	2002	2004	2006	2007	2008	2009	Percent change, 2000-2009
All hospices	2,318	2,349	2,642	3,069	3,253	3,381	3,476	50%
For profit	756	823	1,090	1,465	1,637	1,744	1,828	142
Nonprofit	1,198	1,155	1,154	1,164	1,168	1,178	1,184	-1
Government/other	364	371	398	440	448	459	464	27
Freestanding	1,188	1,276	1,566	1,948	2,125	2,257	2,358	98
Home health based	556	514	522	565	572	572	569	2
Hospital based	560	544	541	540	538	532	528	-6
SNF based	14	15	13	16	18	20	21	50

Note: SNF (skilled nursing facility).

Source: MedPAC analysis of data from CMS Providing Data Quickly system, <https://pdq.cms.hhs.gov>, accessed November 1, 2010.

of 2 percent per year from 2000 to 2008 and 1 percent in 2009. As of 2009, about 53 percent of hospices were for profit, 34 percent were nonprofit, and 13 percent were government or other ownership structures.

Growth in the number of hospices occurred predominantly among freestanding providers. Between 2000 and 2009, the number of freestanding hospices grew 98 percent. The number of home-health-based and hospital-based hospices changed only modestly. Home-health-based hospices grew 2 percent overall between 2000 and 2009 and declined 1 percent in 2009. From 2000 to 2009, hospital-based hospices declined 6 percent overall, with a 1 percent decline in 2009. In contrast, skilled nursing facility (SNF)-based hospices grew from 14 providers to 21 providers during the same period.⁶ As of 2009, 68 percent of hospices were freestanding, 16 percent were home health based, 15 percent were hospital based, and fewer than 1 percent were SNF based.⁷

The increase in the supply of hospices occurred in both rural and urban areas. Between 2000 and 2009, the number of hospices in urban areas grew about 62 percent and the number in rural areas grew about 31 percent (not shown in Table 11-3). As of 2009, about 30 percent of hospices were located in rural areas and 70 percent were in urban areas. Hospice location does not provide a full picture of access to services because a hospice's service area may extend beyond the boundaries of the county where it is located.

For example, some hospices in urban areas provide service to rural areas.

Growth in the number of hospices between 2000 and 2009 varied by state, ranging from robust growth (more than doubling in Alabama, Louisiana, Mississippi, South Carolina, Texas, and Utah) to small declines (in Arkansas, Kentucky, Maryland, New York, and North Dakota).⁸ The District of Columbia experienced no change. Four states with the highest share of hospices reaching the aggregate payment cap in 2008 (Alabama, Mississippi, South Carolina, and Utah) had above-average growth in the number of hospices between 2000 and 2008, with increases in the number of providers ranging from about 100 percent to 274 percent during that time. More hospice providers does not necessarily translate into more access to care. As shown in our March 2010 report, hospice enrollment rates (as measured by the percent of Medicare decedents who used hospice) are unrelated to the supply of hospice providers (as measured by the number of hospices per 1,000 Medicare decedents) in a state (Medicare Payment Advisory Commission 2010). Furthermore, between 2005 and 2009, each state experienced an overall increase in hospice use among Medicare decedents. Among the five states with the most growth in hospice use over this period, the number of providers did not change in one state, grew modestly in two states, and increased at an above-average rate in two states. This result reaffirms

**TABLE
11-4**

Volume of hospice use increased substantially between 2000 and 2009

Category	2000	2008	2009	Annual percent change, 2000–2008	Percent change, 2008–2009
Number of hospice users	513,000	1,055,000	1,088,000	9.4%	3.1%
Total spending (in billions)	\$2.9	\$11.2	\$12.0	18.4	7.1
Average length of stay among decedents (in days)	54	83	86	5.5	3.6
Median length of stay among decedents (in days)	17	17	17	0.0	0.0

Note: Average length of stay is calculated for decedents who used hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his/her lifetime.

Source: MedPAC analysis of the denominator file, the Medicare Beneficiary Database, and the 100 percent hospice claims standard analytic file from CMS.

our finding that the number of hospice providers is not necessarily a measure of access to care.

Volume of services: Growth in the number of hospice users and average length of stay have increased Medicare hospice spending substantially

The number of Medicare beneficiaries receiving hospice services has increased rapidly over the last decade, more than doubling between 2000 and 2009. In 2009, nearly 1.1 million beneficiaries used hospice services, up from just over 0.5 million in 2000 (Table 11-4). The number of hospice users increased rapidly between 2000 and 2008, at an average rate of 9.4 percent per year, and continued to grow in 2009 at a rate of 3.1 percent.

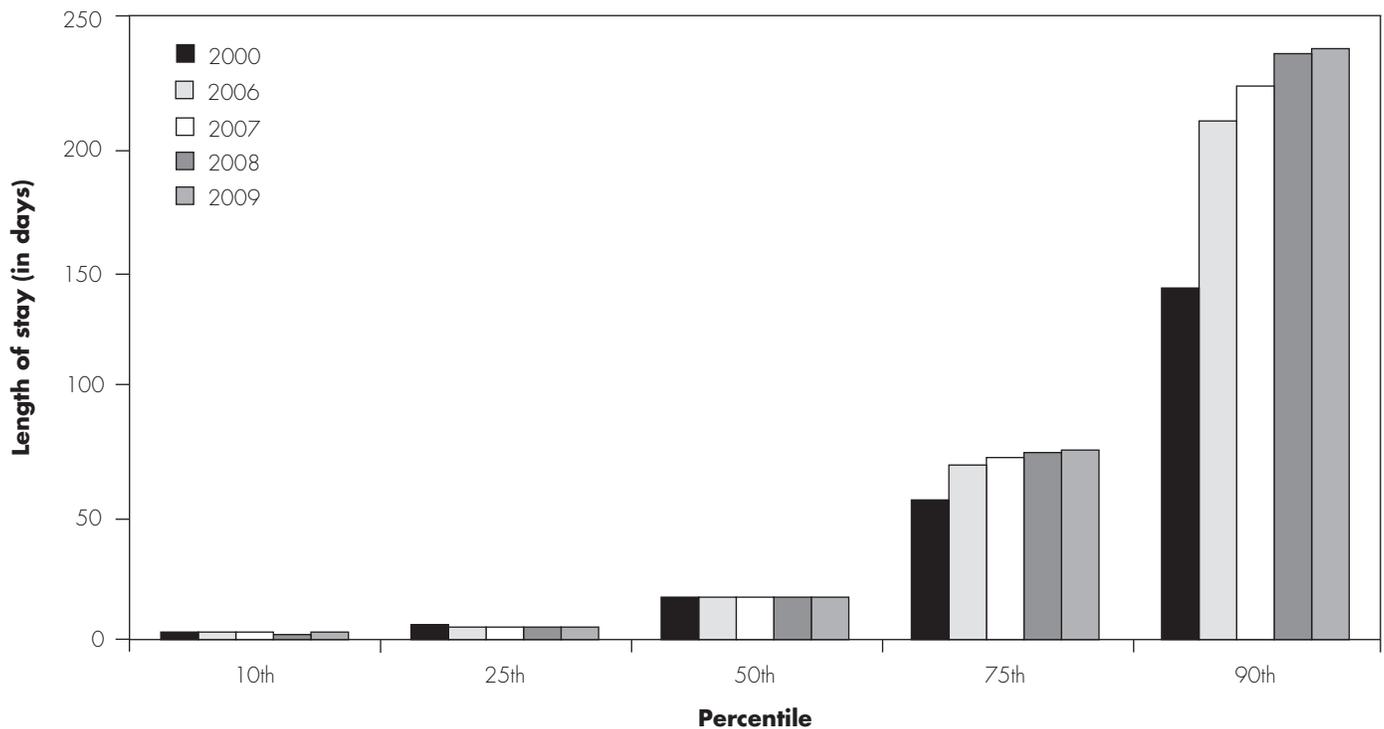
Average length of stay also increased substantially over the last decade. Medicare decedents in 2009 who used hospice had an average stay of 86 days (over the course of their lifetime), compared with 54 days for Medicare decedents in 2000. Growth in length of stay has slowed somewhat in the last few years. Average length of stay among Medicare decedents increased 3.6 percent between 2008 and 2009, compared with an average growth rate of 5.5 percent per year from 2000 to 2008.

The increased average length of stay reflects in large part an increase in very long hospice stays, while short stays remained virtually unchanged (Figure 11-1, p. 270). Between 2000 and 2009, hospice length of stay at the 90th percentile grew substantially, increasing from 141 days to 237 days. Growth in very long stays slowed somewhat in 2009, as the 90th percentile between 2008 and 2009 grew

by just 2 days, from 235 days to 237 days. In contrast, the median stay during the last decade held steady at 17 days and the 25th percentile decreased slightly from 6 days to 5 days.

Both the increase in length of stay for patients with the longest stays and the persistence of very short stays are concerns. With very long stays, the concern is that incentives in the payment system may be spurring some providers to pursue business models that maximize profit by enrolling very-long-stay patients who may not meet the hospice eligibility criteria. At the extreme, some providers may be using hospice as a long-term care benefit rather than as an end-of-life benefit.

With very short hospice stays, the concern is that patients enter hospice too late to fully benefit from all that hospice has to offer. As discussed in our March 2009 report, an expert panel that we convened of hospice industry representatives indicated that very short stays in hospice largely stem from factors unrelated to the Medicare hospice payment system, such as reluctance among physicians, patients, and their families to recognize a terminal situation and the financial incentives of acute care providers to continue treating a terminal patient (Medicare Payment Advisory Commission 2009). Some point to the requirement that beneficiaries forgo intensive conventional care to enroll in hospice as a factor that contributes to short hospice stays. PPACA mandates a three-year demonstration at 15 sites to test the effect of allowing concurrent hospice and conventional care on quality and cost. One private insurer has experimented with this

**FIGURE
11-1****Very long hospice stays have grown longer while short stays remained virtually unchanged**

Note: Length of stay is calculated for decedents who used hospice at the time of death or before death and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his/her lifetime.

Source: MedPAC analysis of the denominator file and the Medicare Beneficiary Database from CMS.

approach among its commercially insured, working age, managed care population and found it resulted in more hospice enrollment, less use of intensive services, and lower costs (Krakauer et al. 2009). It remains to be seen whether this type of approach would yield savings in a Medicare FFS environment with the absence of health plan utilization management and an elderly population with a greater prevalence of noncancer diagnoses, which tend to result in longer hospice stays.

As discussed in our June 2008 report, the increase in long hospice stays appears to be partly the result of the enrollment of more beneficiaries with noncancer diagnoses, for whom it may be more difficult to predict life expectancy. For example, average length of stay among Medicare decedents in 2008 ranged from 53 days for beneficiaries with cancer to 129 days for beneficiaries with neurological conditions (Table 11-5). Over the last decade, with increased recognition that hospice can care for patients with noncancer diagnoses, more patients

with noncancer diagnoses have enrolled in hospice (now constituting roughly two-thirds of hospice patients) and length of stay has grown. But other factors are also at work. Over the last decade, there has been rapid entry of for-profit providers, whose patients on average have longer stays than those of nonprofit providers overall and within diagnosis groups.

Average length of stay also varies by site of service. Among Medicare decedents in 2008, average length of stay was longest for beneficiaries residing in assisted living facilities (142 days), followed by nursing facilities (104 days), and patients residing at home (86 days). Differences in the diagnosis profile of patients residing in facilities explain some of the difference in average length of stay compared with patients at home. The markedly longer stays among assisted living facility residents (who currently constitute 7 percent of hospice patients) compared with nursing facility residents is not understood and bears further monitoring and examination.

Some providers, particularly those that exceed the aggregate payments cap, have a higher average length of stay across all diagnoses. The percent of hospices that exceeded the cap in 2008 is estimated to be about 10 percent (Table 11-6). Medicare hospice payments over the cap represented 1.7 percent of total hospice payments in 2008. Because of the unavailability of certain claims data in 2008, we used a different methodology for estimating cap overpayments in 2008 than we used in previous years. For this reason, comparison of the 2008 cap estimates with prior years may not be reliable. On the basis of additional analyses we performed using our new methodology, we believe that the percent of hospices exceeding the cap increased each year from 2002 through 2008, while total payments over the cap have declined since 2006. We are continuing to explore additional refinements to our methodology.

As discussed in our June 2008 report, above-cap hospices are more likely to be for-profit, freestanding facilities and to have smaller patient loads than below-cap hospices (Medicare Payment Advisory Commission 2008). While above-cap hospices treat more patients with conditions that tend to have longer lengths of stay (e.g., Alzheimer's disease and other neurological conditions), within each diagnosis group, above-cap hospices had longer stays than below-cap hospices. For example, 47 percent of hospice patients with chronic obstructive pulmonary disease in 2008 had stays beyond 180 days in above-cap hospices, compared with 24 percent of patients in below-cap hospices (Table 11-7, p. 272).

One other facet of hospice care we examine is the frequency with which hospice providers' patients do not remain in hospice until death because their disease

**TABLE
11-5**

Hospice average length of stay among decedents by beneficiary and hospice characteristics, 2008

Characteristic	Average length of stay among decedents (in days)
Beneficiary	
Diagnosis	
Cancer	53
Neurological conditions	129
Heart/circulatory	76
Debility	94
COPD	104
Other	83
Site of service	
Home	86
Nursing facility	104
Assisted living facility	142
Hospice	
For profit	98
Nonprofit	68
Freestanding	86
Home health based	70
Hospital based	63

Note: COPD (chronic obstructive pulmonary disease). Average length of stay is calculated for Medicare beneficiaries who died in 2008 and used hospice that year and reflects the total number of days the decedent was enrolled in the Medicare hospice benefit during his or her lifetime.

Source: MedPAC analysis of 100 percent hospice claims standard analytical file data, Medicare Beneficiary Database, Medicare hospice cost reports, Provider of Services file data from CMS, and CMS Providing Data Quickly system.

**TABLE
11-6**

Hospices that exceeded Medicare's annual payment cap, selected years

	2002	2004	2006	2007	2008*
Percent of hospices exceeding the cap	2.6%	5.8%	9.4%	10.4%	10.2%
Average payments over the cap per hospice exceeding the cap (in thousands)	\$470	\$749	\$731	\$612	\$571
Payments over the cap as percent of overall Medicare hospice spending	0.6%	1.7%	2.4%	2.0%	1.7%
Total Medicare hospice spending (in billions)	\$4.4	\$6.6	\$8.8	\$10.4	\$11.2

Note: The cap year is defined as the period beginning November 1 and ending October 31 of the following year.

*Due to a change in data availability, the 2008 estimates are based on a different methodology than the 2002–2007 estimates and are not comparable.

Source: MedPAC analysis of 100 percent hospice claims standard analytical file data, Medicare hospice cost reports, Provider of Services file data from CMS, and CMS Providing Data Quickly system. Data on total spending for each fiscal year from the CMS Office of the Actuary.

TABLE 11-7

Hospice length of stay by diagnosis for above-cap and below-cap hospices, 2008

Percent of stays beyond 180 days among hospice users

Diagnosis	Above-cap hospices	Below-cap hospices
All	41%	19%
Cancer	19	9
Neurological conditions	48	30
Heart/circulatory	44	18
Debility	43	23
COPD	47	24
Other	48	22

Note: COPD (chronic obstructive pulmonary disease). Data reflect the percent of hospice users in 2008 whose hospice stay was beyond 180 days.

Source: MedPAC analysis of 100 percent hospice claims standard analytical file data and the Medicare Beneficiary Database from CMS.

may not follow the expected course and they may no longer meet the eligibility criteria or they may choose to withdraw from hospice and return to conventional care. However, if some hospices have rates of discharging patients alive that are substantially higher than most other hospices it raises concerns that some hospices may be pursuing business models that seek out patients likely to have long stays who may not meet the hospice eligibility criteria and then discharging them when they incur substantial cap liabilities. Comparing hospices that do and do not exceed Medicare’s aggregate payment cap, we find that above-cap hospices have substantially higher rates of patients being discharged alive from hospice. About 44 percent of discharges in above-cap hospices involved patients who were discharged alive compared with 16 percent of discharges in below-cap hospices (Table 11-8). This pattern holds true when comparing patients with similar diagnoses. For example, among patients with heart and circulatory conditions discharged from hospice in 2008, 52 percent of discharges by above-cap hospices were live discharges compared with 16 percent in below-cap hospices.

The longer stays and higher frequency of patients being discharged alive from hospice among above-cap hospices compared with other hospices suggest that above-cap hospices may be admitting patients before they meet the hospice eligibility criteria. A pattern of certain providers

enrolling hospice patients for long periods of time and then discharging them back to traditional Medicare is disruptive for beneficiaries and may result in patients not receiving the most appropriate mix of services. It also raises fiscal concerns for the Medicare program if some hospices do not comply with the benefit’s eligibility criteria and merits further investigation by the Office of Inspector General and CMS.

Some hospices have asserted that Medicare’s aggregate cap impedes access to hospice care. As we saw in our March 2010 report, the hospice cap is unrelated to the prevalence of hospice use across states. Looking at states with the highest rate of hospice enrollment among Medicare decedents in 2008, in some states a substantial portion of hospices exceeded the cap and in other states very few or no hospices exceeded the cap (Table 11-9). For example, Iowa, Delaware, Colorado, Oregon, and Rhode Island have very high hospice use rates and no, or very few, hospices exceeding the cap. This finding demonstrates that exceeding the cap is not a reflection of high hospice enrollment rates.

Quality of care: Information on hospice quality is very limited

Studies indicate that hospice improves the quality of remaining life for patients who elect it and is associated with greater family satisfaction with patients’ end-of-

TABLE 11-8

Hospice live discharges as a percent of all hospice discharges, by diagnosis, for above- and below-cap hospices, 2008

Diagnosis	Hospices	
	Above cap	Below cap
All	44%	16%
Cancer	24	10
Neurological conditions	37	18
Heart/circulatory	52	16
Debility	49	21
COPD	52	20
Other	55	22

Note: COPD (chronic obstructive pulmonary disease).

Source: MedPAC analysis of 100 percent hospice claims standard analytical file data and the denominator file from CMS.

life care (Kane et al. 1984, Miller et al. 2003, Teno et al. 2004). However, publicly reported information on hospice quality across providers is generally not available at this time. The absence of publicly available hospice quality data reflects the fact that hospice quality measures are still under development.

PPACA requires CMS to publish hospice quality measures by October 1, 2012. The measures must generally be endorsed by the contracting entity under Section 1890(a) (i.e., the National Quality Forum (NQF)), although the Secretary does have the authority to adopt measures that have not been endorsed in certain circumstances. It is expected that NQF will announce a call for measures in the near future. Hospices that do not report quality information will receive a 2 percentage point reduction in the market basket update beginning in fiscal year 2014. In addition, PPACA mandates that CMS test value-based purchasing for hospice care no later than January 1, 2016.

Developing standardized empirical quality measures for hospice that can be used for program administration—either to compare provider performance or to adjust payments under future pay-for-performance programs—presents unique challenges. The set of hospice characteristics that are correlated with quality is not clear-cut and structural, process, and outcome measures are scarce. Measures that rely on family perceptions of care are more common, but establishing the validity of those characteristics may be difficult because they are subjective. Measures that rely on hospice patient satisfaction exist but are less common and apply only to a subset of patients who are able to provide feedback on care near the end of life. Despite these challenges, there are a number of efforts to develop hospice quality measures and collect data.

Family and patient surveys

As discussed in our March 2010 report, two associations—the National Hospice and Palliative Care Organization (NHPCO) and the National Association for Homecare and Hospice—field surveys of family members to evaluate their perceptions of hospice care. These data do not cover all hospices and are not publicly available.⁹ The American Hospice Foundation has developed a hospice “report card” that will provide a vehicle for public reporting of quality and other data to allow comparisons of hospices’ performance in terms of quality. The hospice report card, for which data are not currently available, relies on measures from NHPCO’s Family Evaluation of Hospice Care (FEHC) survey (e.g., measures on

**TABLE
11-9**

Hospice cap is unrelated to use of hospice services across states, 2008

Ten states with highest hospice use rates	Percent of:	
	Decedents using hospice	Hospices exceeding the cap
Arizona	58%	25%
Utah	54	28
Florida	53	10
Iowa	50	0
Delaware	48	0
Colorado	48	2
Oregon	48	0
Rhode Island	46	0
Texas	45	11
Michigan	45	3

Source: MedPAC analysis of the denominator file, the Medicare Beneficiary Database, 100 percent hospice claims standard analytical file data, Medicare hospice cost reports from CMS, and the CMS Providing Data Quickly system.

symptom management) as well as administrative data (American Hospice Foundation 2010). Florida has a consumers’ report card on hospice quality that utilizes data from the FEHC survey (Florida Agency for Healthcare Administration 2010). The report card, however, does not differentiate well among hospices.¹⁰ Across most hospices and most quality measures, the ratings are uniformly five stars (highest rating), with only a few cases of four stars.

Florida has also begun requiring hospices to submit data on three outcome measures obtained through surveying patients and families: (1) percent of patients in severe pain at admission who experienced a reduction in pain to a specified level by the fourth day in hospice, (2) percent of patients who thought they received the right amount of pain medication, and (3) percent of patients or families who would recommend hospice to others (Florida Department of Elder Affairs 2010). Performance varied most on the first measure and less so on the other two measures. For the first measure, the percent of patients in severe pain at admission who experienced a reduction in pain by the fourth day, performance varied from 50 percent to 100 percent across hospices, with the majority of hospices reporting that 87 percent or more of these patients experienced a reduction in pain. Across hospices,

**TABLE
11-10**

**Hospice costs per day vary
by type of provider, 2008**

	Average	Percentile		
		25th	50th	75th
All hospices	\$141	\$107	\$132	\$165
Freestanding	135	103	127	158
Home health based	150	109	135	170
Hospital based	175	120	150	193
For profit	127	98	119	153
Nonprofit	156	120	146	181
Above cap	111	91	110	134
Below cap	144	110	135	169
Urban	143	109	135	168
Rural	124	102	124	158

Note: Data reflect aggregate cost per day for all types of hospice care combined (routine home care, continuous home care, general inpatient care, and inpatient respite care). Data are not adjusted for differences in the case mix or wages across hospices.

Source: MedPAC analysis of Medicare hospice cost reports and Medicare Provider of Services data from CMS.

the percent of patients or families who thought the patient received the right amount of pain medication ranged from 93 percent to 100 percent. The percent of patients or families who would recommend hospice to others ranged from 97 percent to 100 percent across hospices, with the exception of one hospice that scored much lower.

CMS initiatives on hospice quality measures

CMS does not currently require hospices to report quality data but has conducted projects to identify and test possible hospice quality measures. In 2006, CMS began the PEACE project with the Carolinas Center for Medical Excellence, Medicare’s quality improvement organization for North and South Carolina, to identify quality measures for end-of-life care and analyze the instruments available to gather data on those measures.¹¹ The PEACE project devised a list of 34 potential hospice quality measures. After the conclusion of the PEACE project, CMS conducted a follow-up project, the hospice Assessment Intervention and Measurement (AIM) project, to test 12 of the quality measures identified by the PEACE project in 7 hospices and 1 palliative care

program in New York. The 12 measures fall into a range of areas: structure and process of care, care for physical symptoms and psychosocial symptoms, social and cultural aspects of care, care of the imminently dying, ethical and legal aspects of care, and adverse events. Some examples of the quality measures tested are the percentage of patients with certain symptoms—such as pain, nausea, and anxiety—who receive treatment or experience symptom relief within a specified time period. Most of the quality measures rely on information reported in the patient’s medical record. One of the 12 quality measures (percentage of families reporting that the hospice attended to family needs for information about medication, treatment, and symptoms) relies on information from the patient’s family and is based on NHPCO’s FEHC. The AIM project was recently completed and it remains to be seen whether quality measures tested in this project or measures identified through other means will be used for the quality reporting initiative. CMS recently embarked on work with a contractor, RTI International, to obtain input on quality measure development and reporting for hospice and eventually to implement the PPACA quality reporting requirement. CMS recently held a listening session and open-door forum to obtain feedback on hospice quality measures and reporting. In the future, we intend to use the information on hospice quality obtained through the AIM project and other sources to inform our own research concerning hospice quality, including engaging an expert panel to provide input on hospice quality issues.

Providers’ access to capital: Access to capital appears to be adequate

Hospices in general are not as capital intensive as some other provider types because they do not require extensive physical infrastructure (although some hospices have chosen to build their own inpatient units, which require significant capital). Overall access to capital for hospices appears adequate.

Some freestanding hospices are part of large publicly traded chain providers. Recent financial reports for these hospices have been favorable. One large publicly traded hospice chain recently reported strong cash flow and margins and limited debt. Another publicly traded hospice company, which was recently part of a merger with another large multisector health care provider, has reported strong hospice earnings. The firm’s debt is reflective of the costs of the recent merger and not an indicator of Medicare payment adequacy for hospice.

While less information is available on access to capital for freestanding providers that are privately held as for-profit or nonprofit, the continued influx of for-profit providers and the modest growth in nonprofit freestanding providers suggest that capital is accessible. Hospital-based and home-health-based hospices have access to capital through their parent providers, which also appear to have adequate access to capital.

Medicare payments and providers' costs

As part of the update framework, we assess the relationship between Medicare payments and providers' costs by considering whether current costs approximate what efficient providers are expected to spend on delivering high-quality care. Medicare margins illuminate the relationship between Medicare payments and providers' costs. We examined margins through the 2008 cost-reporting year, the latest period for which both cost report data and claims data are available. An important driver of margins is providers' costs. To better understand the variation in margins across providers, we have also examined the variation in costs per day across providers.

Hospice costs

Hospice costs per day vary substantially by type of provider. This variation is one reason we observe differences in hospice margins across provider types in our margin analyses. In 2008, hospice costs per day were \$141 on average across all hospice providers (Table 11-10).¹² Freestanding hospices had lower costs per day than home-health-based hospices and hospital-based hospices. For-profit, above-cap, and rural hospices also had lower costs per day than their counterparts.

The differences in costs per day among freestanding, home-health-based, and hospital-based hospices largely reflect differences in average length of stay and indirect costs. Our analysis of the Medicare cost report data indicates that, across all types of hospices, those with longer average lengths of stay have lower costs per day. Freestanding hospices have longer stays than provider-based hospices, which accounts for some, but not all, of the difference in costs per day. Another substantial factor is the higher level of indirect costs among provider-based hospices. In 2008, indirect costs made up 33 percent of total costs for freestanding hospices, compared with 40 percent of total costs for home-health-based hospices and 42 percent of total costs for hospital-based hospices. The higher indirect costs among provider-based hospices

suggest that their costs may be inflated because of the allocation of overhead costs from the parent provider.¹³

Hospice margins

From 2002 to 2008, the aggregate hospice Medicare margin oscillated from as low as 4.6 percent to as high as 6.6 percent (Table 11-11, p. 276).¹⁴ As of 2008, the aggregate hospice Medicare margin was 5.1 percent, down from 5.8 percent in 2007. Margins varied widely across individual hospice providers. In 2008, the Medicare margin was -16.2 percent at the 25th percentile, 4.4 percent at the 50th percentile, and 19.1 percent at the 75th percentile. Our estimates of Medicare margins from 2002 to 2008 exclude overpayments to above-cap hospices and are calculated based on Medicare allowable, reimbursable costs consistent with our approach in other Medicare sectors.^{15,16}

We excluded nonreimbursable bereavement costs from our margin calculations. The statute requires that hospices offer bereavement services to the family members of their deceased Medicare patients. However, the statute prohibits Medicare payment for bereavement services (Section 1814(i)(1)(A) of the Social Security Act). Hospices report the costs associated with bereavement services on the Medicare cost report in a nonreimbursable cost center. If we included bereavement costs from the cost report in our margin estimate, it would reduce the 2008 aggregate Medicare margin by 1.5 percentage points. However, this 1.5 percentage point figure may overestimate the bereavement costs associated with hospice patients. Bereavement costs reported on the Medicare cost report may include more than just the costs of bereavement services furnished to families of hospice patients. As a community service, many hospices offer bereavement services to the community at large, including families of decedents who were not hospice patients.¹⁷ According to some industry cost report experts, some hospices report the cost of bereavement services provided to the families of hospice and nonhospice patients combined on the Medicare cost report. We do not know how much of the bereavement costs on the Medicare cost report reflect services associated with nonhospice patients. But bereavement costs associated with hospice patients may not have as large an effect on margins as the 1.5 percentage points we estimated. Across most hospice types, bereavement costs estimated from the Medicare cost report are similar. Some differences, however, are observed between nonprofit and for-profit providers, with

**TABLE
11-11**

Hospice Medicare margins, 2002-2008

Category	Percent of hospices 2008	2002	2003	2004	2005	2006	2007	2008
All	100%	5.5%	6.6%	5.0%	4.6%	6.4%	5.8%	5.1%
Freestanding	67	9.2	10.9	8.3	7.2	9.7	8.7	8.0
Home health based	17	2.0	3.9	3.1	3.1	3.8	2.3	2.7
Hospital based	16	-9.1	-14.0	-11.6	-9.1	-12.7	-10.6	-12.2
For profit (all)	52	14.9	15.7	11.8	9.9	12.0	10.4	10.0
Freestanding	45	15.6	16.6	12.3	10.3	12.7	11.3	11.3
Nonprofit (all)	35	0.2	1.1	0.3	1.0	1.5	1.7	0.2
Freestanding	16	3.5	5.6	3.7	3.8	5.8	5.6	3.2
Government*	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Urban	69	6.1	7.4	5.9	5.1	7.1	6.4	5.6
Rural	31	0.7	0.1	-2.3	0.2	0.8	1.4	1.3
Patient volume (quintile)								
Lowest	20	-6.3	-2.2	-6.1	-6.6	-5.5	-8.0	-9.8
Second	20	-3.7	-4.1	-1.2	-1.6	0.3	1.0	-1.6
Third	20	3.8	1.6	1.1	1.9	2.4	3.1	3.9
Fourth	20	4.6	3.3	2.8	4.4	5.8	5.9	6.3
Highest	20	7.2	9.6	7.2	5.9	8.1	7.1	6.0
Below cap	90	5.2	6.7	5.6	5.1	7.0	6.1	5.5
Above cap (excluding cap overpayments)	10	14.3	3.5	-3.4	-0.8	0.3	2.5	1.0
Above cap (including cap overpayments)	10	30.9	23.9	18.9	20.7	20.7	20.5	19.0

Note: N/A (not available). Margins for all provider categories exclude overpayments to above-cap hospices, except where specifically indicated. Margins are calculated based on Medicare allowable, reimbursable costs.

* Government-owned providers operate in a different context from other providers, so their margins are not necessarily comparable.

Source: MedPAC analysis of Medicare hospice cost reports, 100 percent hospice claims standard analytical file, and Medicare Provider of Services data from CMS.

bereavement costs being about 2.0 percent and 1.1 percent of total costs, respectively. We do not know what effect, if any, bereavement services provided to the families of nonhospice patients has on the difference in costs between for-profit and nonprofit hospices. We intend to explore these issues in our future research.

We also excluded nonreimbursable volunteer costs from our margin calculations. When the hospice benefit was established, the Congress included in the statute a requirement that a hospice use “volunteers in its provision of care and services in accordance with standards set by the Secretary, which standards shall ensure a continuing level of effort to utilize such volunteers” (Section 1861(dd)(2)(E) of the Social Security Act). In addition, the statute requires that hospices keep records on the

use of volunteers, including documenting the resulting cost savings and service expansions achieved. According to the regulation implementing the Medicare hospice benefit, the intent of the volunteer requirement was to ensure that the establishment of the hospice benefit “did not diminish the voluntary spirit of hospices” (Health Care Financing Administration 1983). To implement the volunteer requirement, the Secretary established that hospices must use volunteers to provide administrative services and patient care equal to at least 5 percent of total patient care hours provided by paid staff or contractors. While volunteers provide cost savings for hospices to the extent that they substitute for care or services that otherwise would be provided by paid staff, hospices incur costs in recruiting and training volunteers. According to conversations with some cost report experts, we believe

that volunteer recruitment and training costs are captured in our margin estimates because they are reported in reimbursable cost centers. Only costs reported in the volunteer nonreimbursable cost center (e.g., mileage reimbursements) are excluded from our margins. If nonreimbursable volunteer costs were included in our margin calculation, it would reduce the aggregate Medicare margin by 0.3 percentage point.¹⁸ According to survey data from NHPCO, hospices relied on 468,000 volunteers in 2009, with the majority (about 58 percent) providing assistance to patients and their families averaging 47 hours of service per volunteer per year (National Hospice and Palliative Care Organization 2010). About 21 percent of volunteers provided clinical support (e.g., clerical work) and another 21 percent provided general support (e.g., fundraising or board of directors) (National Hospice and Palliative Care Organization 2010).¹⁹ Volunteers provided 5.6 percent of clinical staff hours in hospices in 2009 according to NHPCO. In future work, we intend to explore the rationale for Medicare's volunteer requirement for hospice providers in light of changes that have occurred in the hospice industry since the benefit's inception and consider whether the volunteer requirement is still warranted or should be altered or eliminated.

Freestanding, for-profit, and urban hospices have higher margins than their counterparts. In 2008, freestanding hospices had an aggregate Medicare margin of 8.0 percent, compared with home-health-based hospices at 2.7 percent and hospital-based hospices at -12.2 percent. The aggregate Medicare margin was considerably higher among for-profit hospices (10.0 percent) than among nonprofit hospices (0.2 percent). Among nonprofit hospices, differences were substantial in the margins for freestanding and provider-based hospices. In 2008, among freestanding hospices, nonprofit hospices had an aggregate Medicare margin of 3.2 percent, compared with 2.5 percent for home-health-based hospices and -11.0 percent for hospital-based hospices. The aggregate Medicare margin was higher for urban hospices (5.6 percent) than for rural hospices (1.3 percent). Generally, hospices' margins vary by the size of the provider; hospices with more patients have higher margins on average.

Hospice financial performance also varies depending on the length of stay and the setting where the patient receives care (Table 11-12). Hospices with longer stays have higher margins (with margins dropping some for hospices in the longest stay category because our model presumes the return of cap overpayments by hospices that

**TABLE
11-12**

**Hospice Medicare margins
by length of stay and
patient residence, 2008**

Hospice characteristic	Medicare margin
Average length of stay	
Lowest quintile	-10.1%
Second quintile	0.4
Third quintile	7.2
Fourth quintile	11.8
Highest quintile	7.5
Percent of stays > 180 days	
Lowest quintile	-11.0
Second quintile	1.9
Third quintile	5.1
Fourth quintile	14.4
Highest quintile	6.5
Percent of patients in nursing facilities or assisted living facilities	
Lowest quartile	-3.3
Second quartile	2.8
Third quartile	4.8
Highest quartile	13.7
<p>Note: Margins for all provider categories exclude overpayments to above-cap hospices. Margins are calculated based on Medicare allowable, reimbursable costs.</p>	
<p>Source: MedPAC analysis of Medicare hospice cost reports, Medicare Beneficiary Database, 100 percent hospice claims standard analytical file, and Medicare Provider of Services data from CMS.</p>	

exceed the cap). In addition, hospices with a high share of patients in nursing facilities and assisted living facilities have higher margins than other hospices. For example, in 2008 hospices in the top quartile in terms of the percent of their patients residing in nursing facilities and assisted living facilities had a 13.7 percent margin compared with a margin of 4.8 percent in the next highest quartile. Hospices in the lowest two quartiles had lower margins (2.8 percent and -3.3 percent). Some of the difference in margins among hospices with different concentrations of nursing facility and assisted living facility patients is driven by differences in the diagnosis profile and length of stay of patients in these hospices. However, when comparing hospices with similar lengths of stay, those with more nursing and assisted living facility patients have higher margins, possibly reflecting cost savings from treating more patients in a centralized location. We

are continuing to conduct further analyses to explore cost differences across sites of care.

Differences in margins across freestanding, home-health-based, and hospital-based hospices are in part due to differences in indirect costs, which are higher for provider-based hospices and are likely inflated because of the allocation of overhead costs from the parent provider. If home-health-based and hospital-based hospices had indirect cost structures similar to those of freestanding hospices, we estimate that their margins would be 8 to 11 percentage points higher and the industry-wide aggregate Medicare margin would be 2 percentage points higher.²⁰ We intend to continue to examine the differences in the levels of indirect costs across providers and consider whether issues with the allocation of overhead from the parent provider warrant the exclusion of provider-based hospices from our margin calculations.

Projecting margins for 2011

To project the aggregate Medicare margin for 2011, we model the policy changes that went into effect between 2008 (the year of our most recent margin estimates) and 2011. The policies include:

- a market basket update of 3.6 percent for fiscal year 2009, 2.1 percent for fiscal year 2010, and 2.6 percent for fiscal year 2011;
- the first two years of the seven-year phase-out of the wage index budget-neutrality adjustment factor, which reduced payments to hospices by 0.4 percent in fiscal year 2010 and by an additional 0.6 percent in fiscal year 2011;
- additional wage index changes, which reduced payments in fiscal years 2010 and 2011; and
- additional net costs in 2011 associated with the new face-to-face visit requirement for recertification of patients in the third benefit period and in subsequent benefit periods.

Taking into account these policy changes and assuming that hospice costs generally grow at a rate similar to forecasted input price growth, we project an aggregate Medicare margin for hospices of 4.2 percent in fiscal year 2011. This margin projection excludes the nonreimbursable costs associated with bereavement services and volunteers (which would lower the aggregate margin at most by 1.5 and 0.3 percentage points, respectively). It also does not include any adjustment for

the higher indirect costs observed among hospital-based and home-health-based hospices (which would increase the overall aggregate Medicare margin by as much as 2 percentage points).

How should Medicare payments change in 2012?

Our indicators of payment adequacy are generally positive. The Commission believes hospices can operate within the Medicare payment system with a modest update in fiscal year 2012.

Update recommendation

RECOMMENDATION 11

The Congress should update the payment rates for hospice for fiscal year 2012 by 1 percent.

RATIONALE 11

Our payment indicators for hospice are generally positive. The number of hospices has increased in recent years because of the entry of for-profit providers. The number of beneficiaries enrolled in hospice, average length of stay, and total hospice payments have also increased. Access to capital appears adequate. The projected 2011 aggregate Medicare margin is 4.2 percent.

IMPLICATIONS 11

Spending

- Under current law, hospices would receive an update in fiscal year 2012 equal to the hospital market basket index (currently estimated at 2.6 percent). Our recommendation for a 1 percent update in fiscal year 2012 would decrease federal program spending by between \$50 million and \$250 million over one year and by less than \$1 billion over five years.

Beneficiary and provider

- We do not expect this recommendation to have adverse impacts on beneficiaries' access to care. This recommendation is not expected to affect providers' willingness and ability to care for Medicare beneficiaries. ■

Endnotes

- 1 When first established under the Tax Equity and Fiscal Responsibility Act of 1982, the Medicare hospice benefit limited coverage to 210 days of hospice care. The Medicare Catastrophic Coverage Repeal Act of 1989 and the Balanced Budget Act of 1997 eased this limit.
- 2 The Patient Protection and Affordable Care Act of 2010 (PPACA) makes changes to the annual update to hospice payments in future years. Hospice payments will continue to be updated based on the hospital market basket, subject to certain adjustments stipulated by PPACA. Beginning in fiscal year 2013, a productivity adjustment will be applied to the market basket update. The market basket also will be reduced by an additional 0.3 percentage point in fiscal year 2013 and potentially an additional 0.3 percentage point in each fiscal year from 2014 to 2019 if certain targets for health insurance coverage among the working age population are met.
- 3 The average annual payment cap is calculated for the period November 1 through October 31 each year. For the year ending October 31, 2008, the cap was about \$22,386. Beneficiaries are counted in a given year if they have filed an election to receive care from the hospice during the period beginning on September 28 before the beginning of the cap period and ending on September 27 before the end of the cap period. If a beneficiary receives care from more than one hospice, each hospice counts the fraction that represents the portion of the beneficiary's total hospice stay spent in that hospice.
- 4 The most recent cap threshold for cap year ending October 31, 2010, is \$23,874.98.
- 5 In late 2007, CMS issued guidance to state survey and certification agencies indicating that surveys of new hospices applying to be Medicare providers (as well as other types of providers that have the option of obtaining Medicare status through accreditation rather than state surveys) should be in the lowest tier of their workload priorities.
- 6 This count of SNF-based hospices does not include freestanding hospices that are owned by a company that also owns nursing facilities. While we do not have an estimate of the number of freestanding hospices that are part of these types of joint ownership arrangements, joint ownership relationships exist among some hospice and nursing home chains.
- 7 The number of hospital-based hospices may be understated and the number of home-health-based hospices may be overstated, because some hospices that are part of hospital-based home health agencies may report being home health based rather than hospital based.
- 8 Not mentioned in the text, Alaska and Nevada also experienced substantial growth in the number of hospices in percentage terms (more than doubling) but a modest increase in the raw number of providers (from 1 in 2000 to 5 in 2009 for Alaska and from 7 in 2000 to 19 in 2009 for Nevada).
- 9 The Agency for Healthcare Research and Quality's (AHRQ) National Healthcare Quality Report includes aggregate statistics on certain hospice quality measures based on Family Evaluation of Hospice Care data supplied by the National Hospice and Palliative Care Organization (NHPCO). The focus of the measures has included family perceptions of pain management, consistency of care with patients' wishes, and timeliness of referral to hospice. The data are for the subset of hospices that submit Family Evaluation of Hospice Care data to NHPCO, which AHRQ reports reflects a nonrandom data collection and a 40 percent response rate (Agency for Healthcare Research and Quality 2009).
- 10 Part of the reason the Florida report card does not distinguish performance well among hospices may be the broad definition it uses of favorable performance. For example, on questions that asked the family to rate the overall care provided by the hospice or the response by hospice staff on weekends and evenings, there were five possible responses: excellent, very good, good, fair, and poor. The report card assigned stars based on the percentage of favorable responses, with favorable defined as a rating of good, very good, or excellent.
- 11 PEACE stands for prepare, embrace, attend, communicate, and empower.
- 12 In the cost-per-day calculation, costs reflect aggregate cost for all types of hospice care combined (routine home care, continuous home care, general inpatient care, and inpatient respite care). Days reflect the total number of days the hospice is responsible for care for Medicare patients, regardless of whether the patient received a visit on a particular day. The cost-per-day estimates are not adjusted for differences in case mix or wages across hospices.
- 13 In general, hospices with a larger volume of patients have lower indirect costs as a share of total costs. While patient volume explains some of the difference in indirect costs across providers, freestanding hospices have lower indirect costs than provider-based hospices when comparing providers with similar patient volumes.
- 14 The aggregate Medicare margin is calculated by the following formula: $[(\text{sum of total payments to all providers}) - (\text{sum of total costs to all providers}) / (\text{sum of total payments to all providers})]$. Data on total costs come from the Medicare

- cost reports. Data on total Medicare payments and total cap overpayments come from the Medicare claims data. We present margins for 2008 (rather than 2009 like other sectors) because of time lags in the claims data. Currently, we have complete claims data for all hospices only for the 2008 cost-reporting year (which for some hospices includes part of calendar year 2009). For about 97 percent of hospices, we have complete claims data on Medicare payments for the 2009 cost-reporting year. In the future, we intend to explore whether there may be ways to minimize the time lag in the Medicare claims data to obtain an additional year of data on hospice payments for all providers.
- 15 Hospices that exceed the Medicare aggregate cap must repay the excess to Medicare. We do not consider the overpayments to be hospice revenues in our margin calculation.
 - 16 The margin estimates for the period 2002–2005 in this report differ from the estimates for the same time period published in our June 2008 report. The margin estimates in this report exclude overpayments to above-cap providers and exclude Medicare nonreimbursable costs, whereas the prior margin estimates did not.
 - 17 According to survey data from NHPCO, about 92 percent of hospices offer bereavement services to the community at large. Community members (i.e., survivors of decedents who were not enrolled in hospice) account for 18 percent of individuals receiving bereavement services from hospices (National Hospice and Palliative Care Organization 2010).
 - 18 Fundraising costs are also considered nonreimbursable and are not included in our margin calculations. These costs amount to 1.5 percent of total costs.
 - 19 Volunteers engaged in general support services (e.g., fundraising or board of directors) do not count toward the requirement that hospice volunteers provide services equal to at least 5 percent of patient care provided by paid staff or contractors.
 - 20 These estimates are adjusted to account for differences in patient volume across freestanding and provider-based hospices.

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CHAPTER

12

**The Medicare Advantage
program: Status report**

The Medicare Advantage program: Status report

Chapter summary

Each year the Commission provides a status report on the Medicare Advantage (MA) program. To monitor program performance, we examine MA enrollment trends, plan availability for the coming year, and payments for MA plan enrollees relative to spending for fee-for-service (FFS) Medicare beneficiaries. We also provide an update on current quality indicators in MA. In addition this year, we describe the changes in the MA payment system that are being phased in as a result of the Patient Protection and Affordable Care Act of 2010 (PPACA) and suggest a technical adjustment to the benchmark formula.

The MA program allows Medicare beneficiaries to receive benefits from private plans rather than from the traditional FFS Medicare program. The Commission supports private plans in the Medicare program; beneficiaries should be able to choose between the traditional FFS Medicare program and the alternative delivery systems that private plans can provide. Private plans have greater potential to innovate and to use care management techniques and, if paid appropriately, would have more incentive to do so.

Enrollment—In 2010, MA enrollment increased to 11.4 million beneficiaries (24 percent of all Medicare beneficiaries). Enrollment in HMO plans—the largest plan type—increased 7 percent. In a major pattern change between

In this chapter

- Trends in enrollment, plan availability, and payment
- Trends in MA quality
- MA payment changes in PPACA

2009 and 2010, enrollment in private FFS (PFFS) plans declined from about 2.4 million to about 1.7 million enrollees. PFFS plans made business decisions in anticipation of new network requirements for PFFS plans beginning in 2011 mandated by the Medicare Improvements for Patients and Providers Act of 2008. Some PFFS plans reduced offerings and some stated they would begin to transition their enrollment to network-based preferred provider organization (PPO) plans. Predictably, PPOs exhibited rapid growth in enrollment, with local PPO enrollment growing about 40 percent and enrollment in regional PPOs more than doubling between 2009 and 2010. The MA plan bid submissions to CMS project an increase in overall enrollment for 2011, with further movement from PFFS plans to PPOs and continued growth in HMOs.

Plan availability—In 2011, virtually all Medicare beneficiaries have access to an MA plan (0.4 percent do not), and 99 percent have access to a network-based coordinated care plan (CCP). Ninety percent of beneficiaries have access to an MA plan that includes Part D drug coverage and charges no premium (beyond the Medicare Part B premium). While some PFFS plan sponsors offer network PFFS plans in 2011, as noted above there are fewer PFFS plan options. As a result, fewer MA plan options are available in 2011 than in 2010, but beneficiaries can still choose from an average of 12 plan options in each county, including 8 CCPs.

Plan payments—PPACA changes to setting MA plan benchmarks will not be fully phased in until 2017. For 2011, benchmarks were frozen, and the freeze, combined with low growth in FFS Medicare spending, did not result in much change in our measures of benchmarks, plan bids, and Medicare MA payments relative to FFS spending. We estimate that 2011 MA benchmarks, bids, and payments will average 113 percent, 100 percent, and 110 percent of FFS spending, respectively. HMOs are the only plan type with average bids below FFS levels. All other plan types continued to bid above FFS levels on average. The new method of setting MA payment benchmarks may need some technical adjustments, particularly with respect to intercounty benchmark inequities.

Quality measures—For 2010, quality measures were stable with some improvement in clinical process measures over the preceding year, as measured by the Healthcare Effectiveness Data and Information Set. Looking at beneficiary survey information collected through the Consumer Assessment of Healthcare Providers and Systems, we find that, at an aggregate level, vaccination rates and measures of patient experience are comparable to the rates in FFS Medicare, but we are cautious in how we view this result because of variation by population and by geographic area. Measures of patient outcomes in MA are not significantly changed

from earlier years. There continues to be wide variation in quality indicators across plans and across populations in MA.

PPACA introduced a pay-for-performance program for MA that, beginning in 2012, would provide bonus payments to higher quality plans under a five-star rating system. The stars are based on measures of clinical quality, patients' reported care experience, and contract performance. Under the PPACA provisions, plans with four or more stars would have received quality bonuses. However, from 2012 through 2014, CMS is using demonstration authority to replace the PPACA bonus system with a program-wide demonstration that will incur higher program costs. Under the demonstration, plans will provide bonus payments to plans with as few as three stars, the level that CMS defines as average performance. ■

The Medicare Advantage (MA) program allows Medicare beneficiaries to receive benefits from private plans rather than from the traditional fee-for-service (FFS) program. The Commission supports private plans in the Medicare program, as they enable beneficiaries to choose between the FFS Medicare program and the alternative delivery systems that private plans can provide. Plans often have flexibility in payment methods, including the ability to negotiate unique methods with individual providers; care management techniques that fill potential gaps in care delivery (e.g., programs targeted at preventing avoidable hospital readmissions); and robust information systems that provide more timely feedback to providers. Plans can also reward beneficiaries for seeking care from more efficient providers and give them more predictable cost sharing, but plans often restrict the choice of providers.

By contrast, traditional FFS Medicare has lower administrative costs while offering beneficiaries an unconstrained choice of health care providers. Of course, traditional Medicare also has the potential to modify its payment methods over time to better reward value. Private plans and traditional FFS Medicare both have something to offer that might appeal to a segment of the Medicare population. Thus, we favor giving beneficiaries a financially neutral choice of Medicare private plans and FFS Medicare.

Providing a financially neutral choice means that the Medicare program should not send a strong financial signal to the beneficiary favoring MA over FFS, or vice-versa. Currently, Medicare spends more under the MA program for similar beneficiaries than it does under FFS. This higher spending results in extra benefits being provided by way of increased government outlays and beneficiary Part B premiums (including for those who are in traditional FFS Medicare) at a time when Medicare and its beneficiaries are under increasing financial stress. To encourage efficiency and innovation, MA plans need some degree of financial pressure, just as the Commission advocates for providers in the traditional FFS program. There is more than one way to achieve “financial neutrality” between Medicare and private plans. One method is to more tightly link payment to private plans to Medicare FFS costs in the same market. Alternatively, neutrality can be achieved through establishment of a defined contribution that is available for enrollment in either Medicare or a private plan. The latter approach has important implications that the Commission has not yet analyzed. Meanwhile, the Commission will monitor the

effect of the changes mandated by the Patient Protection and Affordable Care Act of 2010 (PPACA) on plan payments and performance as well as progress toward financial neutrality.

Each year the Commission provides a status report on the MA program. To monitor program performance, we examine MA enrollment trends, plan availability for the coming year, and payments for MA plan enrollees relative to spending for FFS Medicare beneficiaries. We also provide an update on current quality indicators in MA.

Background

Our analysis of the MA program uses the most recent data available and reports results by plan type. The plan types are:

- **Health maintenance organizations (HMOs) and local preferred provider organizations (PPOs)**—These plans have provider networks and can use tools such as selective contracting and utilization management to coordinate and manage care. They can choose to serve individual counties and can vary their premiums and benefits across counties.
- **Regional PPOs**—These plans are required to offer a uniform benefit package and premium across designated regions made up of one or more states. Regional PPOs have less extensive network requirements than local PPOs.
- **Coordinated care plans (CCPs)**—This category includes all HMOs, local PPOs, and regional PPOs.
- **Private FFS (PFFS) plans**—Before legislation effective 2011, PFFS plans typically did not have provider networks, making them less able than other plan types to coordinate care. They used Medicare FFS payment rates and had fewer quality reporting requirements. Under a requirement in the Medicare Improvements for Patients and Providers Act of 2008 (MIPPA), in areas with two or more network MA plans, PFFS plans can be offered only if they have provider networks. PFFS plans are also now required to participate in quality reporting. Existing PFFS plans had to either withdraw or develop provider networks, which in effect would change them to PPOs or HMOs.

**TABLE
12-1**

Medicare Advantage enrollment grew in 2010

	MA enrollment (in millions)		Percent change	2010 MA enrollment as a share of total Medicare
	November 2009	November 2010		
Total	10.9	11.4	5%	24%
Urban	9.6	10.0	4	26
Rural	1.3	1.4	7	15
Plan type				
CCP	8.4	9.8	16	21
HMO	7.0	7.5	7	16
Local PPO	1.0	1.4	42	3
Regional PPO	0.4	0.9	98	2
PFFS	2.4	1.7	-32	3
Restricted availability plans included in totals above				
SNPs*	1.4	1.4	-2	3
Employer group*	1.9	2.0	4	4

Note: MA (Medicare Advantage), CCP (coordinated care plan), PPO (preferred provider organization), PFFS (private fee-for-service), SNPs (special needs plans). CCP includes HMO, local PPO, and regional PPO. Totals may not sum due to rounding.
* SNPs and employer-group plans have restricted availability and their enrollment is included in the statistics by plan type and location. They are presented separately to provide a more complete picture of the MA program.

Source: MedPAC analysis of CMS enrollment files.

Two additional plan classifications cut across plan types. First are special needs plans (SNPs), which offer benefit packages tailored to specific populations (i.e., beneficiaries who are dually eligible for Medicare and Medicaid, are institutionalized, or have a chronic condition). SNPs must be CCPs. Second are employer-group plans, which are available only to Medicare beneficiaries who are members of employer or union groups that contract with those plans. Employer-group plans may no longer be non-network PFFS plans. Both SNPs and employer-group plans are included in our plan data, with the exception of plan availability figures, as these plans are not available to all beneficiaries.

Plan payment rates are determined by the MA plan “bid” (the dollar amount the plan estimates will cover the Part A and Part B benefit for a beneficiary of average health status) and the payment area’s “benchmark” (the maximum amount of Medicare payment set by law for an MA plan to provide Part A and Part B benefits). If a plan’s bid is above the benchmark, then its MA payment rate is equal to the benchmark, and enrollees have to pay an additional premium equal to the difference. If a plan’s bid is below the benchmark, then its payment rate is its

bid plus 75 percent of the difference between the plan’s bid and the benchmark. Because benchmarks are often set well above what it costs Medicare to provide benefits to similar beneficiaries in the FFS program, MA payment rates usually exceed FFS spending. In past reports, we examined why benchmarks are above FFS spending and what the ramifications are for the Medicare program. (Actual plan payments, as opposed to payment rates, are risk-adjusted. A more detailed description of the MA program payment system can be found at http://www.medpac.gov/documents/MedPAC_Payment_Basics_10_MA.pdf.)

Trends in enrollment, plan availability, and payment

Two pieces of enacted legislation have brought changes to the MA program for 2011. As noted, MIPPA requires PFFS plans to maintain provider networks in areas where there are already two or more MA plans with networks. While some PFFS plan sponsors offer network PFFS plans in 2011, many sponsors withdrew their PFFS plan options

(and some simultaneously expanded their PPO options). PPACA froze MA benchmarks for 2011 at 2010 levels. (PPACA also makes other changes, including benchmark reductions in future years, which are discussed below.)

Enrollment trends: Plan enrollment grew in 2010

From November 2009 to November 2010, enrollment in MA plans grew by about 5 percent, or one-half million enrollees, to 11.4 million beneficiaries, or 24 percent of all Medicare beneficiaries (Table 12-1).

Between 2009 and 2010, enrollment patterns differed in urban and rural areas. A larger share of urban Medicare beneficiaries were enrolled in MA (about 26 percent) than beneficiaries residing in rural counties (about 15 percent), even though plan enrollment grew at a faster rate in rural areas (about 7 percent) than in urban areas (about 4 percent). In 2010, 42 percent of rural MA enrollees were in PFFS plans (not shown in Table 12-1), compared with about 12 percent of urban enrollees.

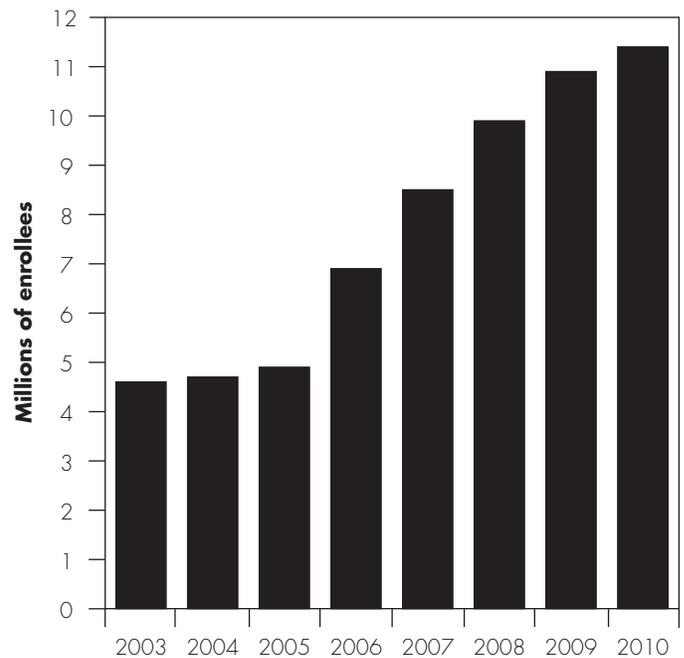
The percentage of Medicare beneficiaries enrolled in MA plans in 2010 varied widely by local area. In some metropolitan areas, less than 2 percent of Medicare beneficiaries were enrolled in MA plans, whereas in other areas, enrollment was 50 percent or more. (In Pittsburgh, PA, 60 percent of beneficiaries were enrolled in MA plans; in some areas of Puerto Rico, 70 percent of Medicare beneficiaries were enrolled.)

Among plan types, HMOs continued to enroll the most beneficiaries (7.5 million), with 16 percent of all Medicare beneficiaries in HMOs in 2010. PFFS enrollment shrank from about 2.4 million in 2009 to about 1.7 million enrollees in 2010, a decrease of about 700,000 enrollees. The decrease followed reduced PFFS plan offerings, as plans made business decisions to reduce their PFFS service areas in anticipation of MIPPA's network requirements for PFFS plans beginning in 2011. Some PFFS plans stated that they would begin to transition their enrollment to network plans. Indeed, PPOs exhibited rapid enrollment growth, with local PPO enrollment increasing about 40 percent and enrollment in regional PPOs more than doubling between 2009 and 2010. In 2010, SNP enrollment stayed at 1.4 million and employer-group enrollment grew about 5 percent to 2 million enrollees.

MA enrollment growth in 2010 continued a trend begun in 2003 (Figure 12-1). Enrollment more than doubled in the last five years. The 5 percent growth in 2010, however,

FIGURE 12-1

Medicare Advantage enrollment, 2003-2010



Source: CMS monthly Medicare Advantage enrollment reports.

was the lowest growth since 2005 and was down from 10 percent growth in 2009. We did not have 2011 enrollment information as of this report's publication, but plans projected overall enrollment growth in the 5 percent to 6 percent range for 2011.

Plan availability for 2011

Every year, we base our plan availability and projected enrollment for the coming year on the bid data that plans submit to CMS. Access to MA plans remains high in 2011, with most Medicare beneficiaries having access to a large number of plans.

Overall access is stable

While almost all beneficiaries have had access to some type of MA plan since 2006, local CCP plans are more widely available in 2011 than in previous years (Table 12-2, p. 292). In 2011, 92 percent of Medicare beneficiaries have an HMO or local PPO plan operating in their county of residence, up from 91 percent in 2010 and 67 percent in 2005. Regional PPOs are available to 86 percent of beneficiaries in 2011, unchanged from 2010. In contrast, access to PFFS plans decreased between 2010 and 2011, from 100 percent to 63 percent of beneficiaries, consistent

**TABLE
12-2**

Access to Medicare Advantage plans remains high

Percent of beneficiaries with access to MA plans by type

Type of plan	2005	2006	2007	2008	2009	2010	2011
All plan types*	84%	100%	100%	100%	100%	100%	100%
CCP							
HMO or local PPO	67	80	82	85	88	91	92
Regional PPO	N/A	87	87	87	91	86	86
PFFS	45	80	100	100	100	100	63
Zero-premium plans with Part D	N/A	73	86	88	94	85	90
Average number of MA plans open to all beneficiaries in a county	5	12	20	35	34	21	12

Note: MA (Medicare Advantage), CCP (coordinated care plan), PPO (preferred provider organization), N/A (not applicable), PFFS (private fee-for-service). These figures exclude special needs plans and employer-only plans. A zero-premium plan with Part D includes Part D coverage and has no premium beyond the Part B premium. Regional PPOs were created in 2006. Part D began in 2006.

*Statistics for medical savings account plans (MSAs) are not shown. Only two MSA plans are offered in 2011 (and only in New York and Pennsylvania). In 2010 there were only about 600 MSA enrollees.

Source: MedPAC analysis of plan bids to CMS, 2010

with MIPPA’s network requirements for PFFS plans. Overall, virtually all Medicare beneficiaries have access to an MA plan (0.4 percent do not), and 99 percent have access to a CCP (not shown in Table 12-2).

Even lower access to PFFS plans might have been expected, as 13 percent of beneficiaries reside in counties without two or more network plans. Under MIPPA network requirements, PFFS plans must have a network in most of the counties they serve in 2011.

In 2011, 90 percent of Medicare beneficiaries have access to at least one MA plan that includes Part D drug coverage and charges no premium (beyond the Medicare Part B premium), compared with 85 percent in 2010.

The availability of SNPs (not shown in Table 12-2) has decreased slightly and varies by type of special needs population served. In 2011, 76 percent of beneficiaries reside in areas where SNPs serve beneficiaries who are dually eligible for Medicare and Medicaid (down from 79 percent in 2010), 47 percent live where SNPs serve institutionalized beneficiaries (down from 49 percent), and 46 percent live where SNPs serve beneficiaries with chronic conditions (down from 63 percent). Overall, 81 percent of beneficiaries reside in counties served by SNPs (in some cases, we could not identify which population a plan serves).

Although fewer than last year, a large number of plans remain available to beneficiaries

In most counties, a large number of MA plans are available to beneficiaries, although the number varies by county. For example, in Broward County, FL, beneficiaries can choose from 59 plans in 2011 (down from 69 in 2010). A few counties in the country have no plans (they represent 0.4 percent of the beneficiary population). On average, 12 plans are offered in each county in 2011, down from 21 plans in 2010.

There are two principal reasons for this decrease. The primary reason is the withdrawal of PFFS plans from many counties because of the network requirements in MIPPA. Although an average of five PFFS plans remain available in each county in 2011, an average of 13 PFFS plans were available in 2010. MIPPA requires that, by 2011, PFFS plans develop provider networks in areas where there are two or more network-based plans. (Some supporters of the provision believed there was no need to subsidize PFFS plans in areas where beneficiaries had other alternatives to Medicare FFS that held more promise to be able to provide care more efficiently.) In 2009, PFFS enrollment was about 22 percent of MA enrollment. Plan bids project that PFFS enrollment will fall to about 7 percent of MA enrollment in 2011. Because of the

**TABLE
12-3**

Payments exceed FFS spending for all plan types in 2011

Percent of FFS spending in 2011

Plan type	Benchmarks	Bids	Payments
All MA plans	113%	100%	110%
HMO	113	97	109
Local PPO	116	109	114
Regional PPO	110	104	110
PFFS	116	110	114
Restricted availability plans included in totals above			
SNP*	116	104	113
Employer groups*	114	108	112

Note: FFS (fee-for-service), MA (Medicare Advantage), PPO (preferred provider organization), PFFS (private fee-for-service), SNP (special needs plan). Benchmarks are the maximum Medicare program payments for MA plans. FFS spending by county is estimated using the 2010 MA rate book. Spending related to the double payment for indirect medical education payments made to teaching hospitals was removed. Totals may not sum due to rounding.

*SNPs and employer-group plans have restricted availability and their enrollment is included in the statistics by plan type. They are presented separately to provide a more complete picture of the MA program.

Source: MedPAC analysis of data from CMS on plan bids, enrollment, benchmarks, and fee-for-service expenditures.

current round of PFFS plan withdrawals, many enrollees will need to join a different MA plan in 2011. CCPs are available to 99 percent of beneficiaries in 2011, and, as in 2010, an average of eight CCPs are still being offered in each county. Beneficiaries can also choose to obtain care through FFS Medicare.

The second reason for the decrease in MA plans is that CMS has made additional efforts to decrease the number of low-enrollment plans (CMS found a large number of plans with fewer than 10 enrollees) and duplicative plans. CMS defined a duplicative plan as one that did not offer meaningful differences from other plan choices. (In bidding guidance to plans, CMS defined a meaningful difference as \$20 per month in cost sharing (Centers for Medicare & Medicaid Services 2010a).) Usually, such plans belonged to a family of plans from the same insurer with small differences among the benefit packages.

2011 benchmarks frozen at 2010 levels

Under PPACA, MA benchmarks for 2011 were set equal to the 2010 benchmarks for each county. Beginning in 2012, benchmarks will transition to a system in which each county’s benchmark will be a certain percentage (ranging from 95 percent to 115 percent) of the average per capita Medicare FFS spending for the county’s residents. The percentage will be based on the level of FFS spending for the county relative to spending for other

counties. (The FFS spending estimates will be updated every three years or more frequently at CMS’s discretion.)

The average benchmark by plan type will vary depending on the counties the plans serve and where they draw their enrollment. By law, certain counties were given higher benchmarks with the intent to increase plan availability. Local PPOs and PFFS plans tend to operate in counties with higher benchmarks relative to FFS than other plan types. SNPs have high benchmarks relative to FFS because a large share of total SNP enrollment is in Puerto Rico, where benchmarks have been very high relative to FFS (180 percent).

MA benchmarks, bids, and payments relative to Medicare FFS

We estimate that 2011 MA benchmarks, bids, and payments would average 113 percent, 100 percent, and 110 percent of FFS spending, respectively (Table 12-3). (Benchmarks, bids, and payments are weighted by plans’ projected 2011 enrollment by county to estimate overall averages and averages by plan type.) Last year, we estimated that, for 2010 (assuming there was no sustainable growth rate reduction in Medicare physician payment rates during 2010), these figures would be 112 percent, 100 percent, and 109 percent, respectively. The benchmark freeze between 2010 and 2011, combined with low FFS growth between 2010 and 2011, resulted

in very little change in the ratios, even at the plan-type level. Given the level of precision of the estimate and the refinement of data, we view this as no change from 2010.

The ratio of MA plan payments to FFS spending varies by plan type, but the ratios for all plan types are substantially higher than 100 percent. In 2011, overall payments to plans average an estimated 110 percent of FFS spending. Many plans (about 37 percent of all plans bidding) bid to provide Part A and Part B benefits for less than what the FFS Medicare program would spend to provide these benefits. However, because the benchmarks are high relative to FFS spending, payments for enrollees in these plans usually exceed FFS spending. For example, HMOs, as a group, bid an average of 97 percent of FFS spending, yet payments for HMO enrollees are estimated to average 109 percent of FFS spending. Other plan types have average bids above FFS spending and, as a result, payments for PFFS and local PPO enrollees are estimated to be 114 percent of FFS spending.

We separately analyzed bids and payments to SNPs and employer-group plans, because their bidding behavior differs from that of other plan types. Payments to SNPs are estimated to average well above FFS spending because the plans tend to be located in areas that have high benchmarks relative to FFS, and their bids average more than FFS spending. Employer-group plans consistently bid higher than plans that are open to all Medicare beneficiaries. In aggregate, employer-group plan bids and payments are well above FFS spending. The dynamic of the bidding process for employer-group plans is more complicated than for other MA plans, because employer-group plans can negotiate specific benefits and premiums with employers after the Medicare bidding process is complete. Conceptually, the closer the bid is to the benchmark—that is, the maximum Medicare payment—the better it is for the plans and the employer, because a higher bid brings in more revenue from Medicare, potentially offsetting expenses that would have required a larger contribution from employers.

Trends in MA quality

In this section, we examine the level of, and trends in, the quality of care for beneficiaries enrolled in MA plans. We discuss the state of MA quality in the context of our past work on ways to improve quality measurement in MA and in the context of the pay-for-performance system, or

quality bonus program, required under PPACA that will provide additional payments to plans that perform well on quality indicators.

Our analysis resulted in two general findings. First, MA plan quality, as reflected in the measures from the three main data sets of quality metrics, is stable relative to 2009, but there is wide variation in quality among plans. Some of the variation reflects differences in the way plans report certain measures. Our second general finding pertains to the CMS star rating system and the undue weight given to contract performance measures in determining a plan's overall star rating. This finding is of particular concern because the current overall star ratings will be used to determine quality bonus payments to plans for at least the immediate future. Although the bonus program does not begin until 2012, bonuses at that time will be determined based on the quality measures reported during the current reporting cycle. Bonus payments will be made in the form of increases to benchmark levels for qualifying plans. The quality measures currently reported have to be the basis for bonus payments, because 2012 benchmarks are fixed as of the announcement of MA rates for the year 2012 that will occur in April 2011 (the annual rate announcement date required by the statute). The Commission believes that outcome measures are better indicators of plan quality, and such measures (to the extent they are available) should be the most important factor in determining a plan's overall rating on quality.

In past work, we discussed two major issues in evaluating quality in MA: ways to improve the ability to measure quality in MA plans and how to compare quality of care in the MA sector with the FFS sector. In a mandated report to the Congress in 2010 dealing with these two issues, the Commission made a number of recommendations that would require several years to implement (Medicare Payment Advisory Commission 2010). CMS is making progress on some of the Commission's recommendations, and, in a recent proposed rule, stated its intention to pursue a direction that is consistent with our recommendations. Specifically, CMS is moving toward more outcome-oriented measures and is seeking to expand the number of measures targeted to Medicare beneficiaries and specific classes of beneficiaries, such as the frail elderly. CMS has stated its intent to place a "greater emphasis on demonstrable improvements in beneficiary access to care, beneficiary health status and outcomes, beneficiary satisfaction and engagement, prevention and management of chronic conditions as well as coordination across the

continuum of care” as well as seeking “to continually raise performance targets, so as to incentivize continual quality improvement across established metrics of performance and quality” (Centers for Medicare & Medicaid Services 2010b).

In terms of evaluating the current status of quality in MA, the salient points of the recommendations in the mandated report that are relevant to our examination of the current quality indicators include the following recommended actions:

- Additional measures of quality should be developed that are primarily outcome oriented, and the measures should be of sufficient scope to give a broad picture of the quality of care provided to Medicare enrollees in plans.
- All plans should be on an equal footing in the standards for reporting and measurement.
- Comparisons across plans, and between plans and the traditional FFS program, should be “apples to apples” comparisons. (For example, comparisons of one MA plan with another, and plan performance compared with quality in FFS Medicare, should be judged within the geographic area served by each plan; as we discuss below with regard to the use of medical record review, measures that are used to compare plans and to compare sectors should be uniform and consistent in their specifications and in the way they are determined and reported.)

With regard to progress made on these particular issues, CMS and the National Committee for Quality Assurance (NCQA) are working on developing new measures—including a hospital readmission measure—but did not introduce any new MA measures in the current reporting cycle. NCQA has noted that developing measures for the elderly presents special challenges—including lack of an evidence base for the elderly, who are often left out of clinical trials, “multiple comorbidities that confound treatment recommendations,” and a small numbers issue for rare conditions or “newly incident” conditions (National Committee for Quality Assurance 2011).

CMS is proceeding with its intent to collect detailed encounter data from plans beginning in 2012, which could enable CMS to derive additional quality measures for plans, including measures that can be compared directly with measures determined from FFS claims (such as hospital readmissions, admission rates for ambulatory care

sensitive conditions, potentially preventable emergency department visits, and mortality rates after a hospital stay (Medicare Payment Advisory Commission 2010)). With respect to the second point above, CMS put other plan types on a more even footing with HMO plans by allowing PPO and PFFS plans, at their option, to use medical record review as a basis for reporting certain measures, beginning with the current reporting cycle (as opposed to the prior policy of having non-HMO plans use only administrative records).

The third point—how to ensure comparability—involves geography as well as other factors. CMS currently makes comparisons by geographic area between FFS Medicare and health plans in measures that are collected through the Consumer Assessment of Healthcare Providers and Systems (CAHPS[®]) beneficiary survey. A problem remains in that the health plan measures that are compared with FFS measures are not always area specific. The measures for health plans are reported at the MA contract level, while FFS measures are reported at the state level for 42 states or territories (and at a substate level otherwise). For example, when a Medicare beneficiary uses the medicare.gov Plan Finder website to compare available plans with FFS Medicare, a regional PPO covering three states has one flu vaccination rate reported across its three states (an enrollment-weighted average across the organization’s three states). The FFS vaccination rates, on the other hand, are reported for the state where the Medicare beneficiary resides. At the other extreme, a local HMO that serves a very small, distinct geographic area has its rates compared with a statewide FFS average.

Comparability is also a concern as we look at plan performance on individual quality measures. We continue to see wide variation in results by plan type and great variation in plan scores among certain types of measures. Some of the variation reflects differences in the quality of care across plans and the greater ability of some plans to influence provider practices and to invest in the infrastructure that gives plans the ability to track quality indicators and undertake improvements. However, the data also suggest that the variation among plans may reflect other factors, including:

- differences in plan characteristics (e.g., newer HMO plans tend to have lower scores on quality measures than more established plans),
- the composition of plan enrollment (differences that we see in the proportion of Medicare beneficiaries

under age 65 in certain plan types may be a factor affecting quality indicators),

- the use of a good system of electronic medical records (a difference that appears to explain large differences in one new measure),
- the geographic area served by a plan (e.g., a plan may do well on quality indicators because of the attention to quality among the provider community in its area), and
- the reporting standards and definitions that apply to individual measures (in particular, the choices that plans can make in deciding how to report measures for which medical record review is an option).

The variation that we continue to see in performance reinforces the recommendations dealing with the need to improve comparability in measures within MA and to ensure comparability between measures that compare MA with FFS. Comparisons should be based on like measures that are compared within the same or like geographic areas. Recognizing differences across plans that materially affect certain measures may require adjusting current measures or introducing new measures that are neutral with respect to such differences.

From the three sources of quality indicators in MA, CMS will use a subset of measures to determine bonus payments as well as contract performance measures

In examining quality indicators for MA each year, we use three sources of data, which we describe briefly below (and which are described in greater detail in the online appendix (available at http://medpac.gov/chapters/Mar10_Ch06_APPENDIX.pdf) to Chapter 6 of the MIPPA-mandated report (Medicare Payment Advisory Commission 2010)). As we describe each data set, we also indicate the extent to which CMS will use measures from the data sets in determining star ratings that will be the basis of quality bonus payments as of 2012. (We discuss the star system in greater detail below.)

For MA–Prescription Drug (MA–PD) plans, there are 36 measures under Part C (the Medicare Part A and Part B benefit) and 15 unique Part D measures—for a total of 51 measures—that make up the overall star rating that will determine the quality bonus level, if any, and the rebate level of each plan. Each measure that CMS uses is equally weighted in determining stars. The distribution of measures that determine the cut points for each level of

star ratings—that is, where a plan falls within the range of one to five possible stars—is a distribution that includes all reported rates by all plan types for each of the measures, with no weighting (e.g., by enrollment or otherwise, but with colorectal cancer screening not included in the star computation for PPOs).

The three data sources and the proportion of measures that each contributes to the star ratings are:

- The Healthcare Effectiveness Data and Information Set (HEDIS[®]) is a set of clinical process and intermediate outcome measures, maintained by NCQA, that health plans report to CMS; it is also used for commercial, Medicaid, and children’s health plans.¹ HEDIS measures are based on administrative data, such as claims and encounter data, and often are supplemented with clinical data extracted from medical records. HEDIS also includes measures from the next two sources of data, which are beneficiary surveys.
- The star rating system uses 21 HEDIS measures, including 6 measures included as HEDIS measures that come from the next two sources of data. In other words, most of the 36 Part C measures for MA plans are HEDIS measures.²
- The Consumer Assessment of Healthcare Providers and Systems for MA plans (CAHPS[®]–MA) is a beneficiary survey measuring beneficiary experience of care in terms of access to care and the rating of a health plan and its providers.³ For MA, the CAHPS survey consists of questions in six domains: how well doctors communicate, getting care quickly, getting needed care without delays, health plan information and customer service, overall rating of health care quality, and overall rating of health plan quality. CAHPS is the source of HEDIS measures that track flu and pneumonia vaccination rates.
- The MA star rating system uses eight CAHPS measures—the flu and pneumonia vaccination rates (which are also HEDIS measures)—and six measures of access to care and satisfaction with the beneficiary’s health plan and its providers. In addition, Part D star measures (which apply to MA–PD plans) include three CAHPS measures.
- The Health Outcomes Survey (HOS) is a survey of self-reported health status among Medicare health plan enrollees. It is a source of seven HEDIS measures and is the basis for determining whether a health

plan's enrollees have had any improvement or decline in their health status over a two-year period. A plan is deemed to have better or poorer outcomes if the plan's results on the physical or mental health measures differ significantly from the national average across all plans.

- The star rating system uses measures of each plan's rate of improvement or maintenance of physical health (one measure) and mental health (one measure), as well as four of the seven HEDIS measures that are collected through the HOS survey (osteoporosis testing, management of urinary incontinence, advising patients on physical activity, and addressing the risk of falls).

In addition to the measures of clinical quality and patient experiences of care, the overall star rating includes 17 contract performance measures, of which 10 are Part D measures and 5 are Part C measures (with contract performance measures therefore making up one-third of the 51 measures that determine the overall star rating). Contract performance measures include measures of complaint and appeal rates, call center performance, and corrective action plans. The online appendix to this chapter (available at <http://www.medpac.gov>) lists all measures included in the star ratings.

Recent indicators of quality in MA plans are stable but many measures continue to show wide variation across plans

In the next sections, we discuss results from the three sets of quality indicators for the current reporting cycle. In general, we find little change from last year in HEDIS and HOS results and little difference between MA and FFS in CAHPS results. Underlying the overall results in HEDIS, we see wide variation across quality indicators among plans with respect to their performance on individual measures, wide variation by plan type, and variation by the nature of the enrolled population (e.g., whether an enrollee is in an employer-sponsored MA plan or benefit package). On HEDIS measures that each plan type reports from administrative data, there is generally little difference between HMO results and local PPO results. We continue to see poorer HEDIS results among newer HMO plans compared with older, more established plans. Very few regional PPOs and PFFS plans have reported HEDIS results, but among those that do report results, many measures show poorer results for these plan types. With CAHPS, we also see wide variation in results by plan type, for example, but little difference between MA overall and

the FFS system in vaccination rates and several access-to-care measures. HOS results are similar to last year's results, which showed that a large majority of plans did not have extreme changes in the physical or mental health of their enrollees over the most recent two-year period.

Without changing the method of collecting and reporting data to address two concerns addressed in the MIPPA report—having all plans report on an equal footing and making comparisons at an appropriate geographic level—it is often difficult to draw conclusions about how plans are performing relative to each other and what MA plan results on certain measures mean compared with available measures in FFS (Medicare Payment Advisory Commission 2010).

HEDIS results show slight improvement, with HMOs and local PPOs performing at about the same level on many measures

We have traditionally examined performance among HMOs when evaluating the performance of the MA sector across the entire set of HEDIS measures. The other types of MA plans—PPOs and PFFS plans—could not be compared directly on all 46 measures because, in the case of PFFS plans, reporting has been optional (but will be required as of the next reporting cycle), and because, for PPO plans, certain measures (the 13 measures with a medical record review component) were not reported on the same basis as for HMOs.

Beginning with the current reporting cycle, PPOs are subject to the same standards as HMOs in that for the 13 measures that are hybrid measures—those that can include a medical record review component—both HMOs and PPOs can choose to report either on the basis of administrative records only (claims, encounters, electronic medical records) or by using a sample of medical records to supplement the administrative data. In addition, for one specific hybrid measure—colorectal cancer screening—PPOs are still precluded from using medical record review to report their HEDIS scores (but the measure, though reported for each plan at the [medicare.gov](http://www.medicare.gov) Plan Finder website, is not used for computing a PPO's star rating (Centers for Medicare & Medicaid Services 2010c)). While HMOs and PPOs are now on an equal footing with respect to how they can report the hybrid measures other than colorectal cancer screening, the ability of each individual plan to choose one or the other method for reporting still means that it is not possible to compare results across plans. Standardizing the reporting

**TABLE
12-4**

MA HMO plans showed improvement in 9 of 46 HEDIS® effectiveness-of-care measures between the 2009 and 2010 reporting years

Measure and category	Type of measure	Component of star ratings?	Mean rate		Percent change, 2009–2010
			2009	2010	
Testing, screening exams					
HbA1c testing for diabetics	Hybrid	Yes	88.3%	89.6%	1.5%
Eye exams for diabetics	Hybrid	Yes	60.6	63.5	4.8
Glaucoma screening in older adults	Administrative	Yes	59.8	62.1	3.8
Drug use and monitoring drug use					
Monitoring ACE inhibitors or ARBs	Administrative	No	86.7	89.5	3.2
Monitoring digoxin	Administrative	No	90.4	92.0	1.8
Monitoring diuretics	Administrative	No	87.1	89.8	3.1
Total annual monitoring of patients on persistent medications	Administrative	Yes	86.3	89.1	3.2
Persistence of beta-blocker treatment after a heart attack*	Administrative	No	79.7	82.6	3.6
Bronchodilator pharmacotherapy management of COPD exacerbation*	Administrative	No	74.1	76.2	2.8

Note: MA (Medicare Advantage), HEDIS® (Healthcare Effectiveness Data and Information Set), HbA1c (hemoglobin A1c), ACE (angiotensin-converting enzyme), ARB (angiotensin receptor blocker), COPD (chronic obstructive pulmonary disease). Administrative measure reporting is based on claims, encounter data, drug data or electronic records. The rate is the percent of the population to whom the measure applies who obtain the service or meet the criteria. Change for each measure shown is statistically significant ($p < 0.05$).

*In each year, fewer than half of HMO plans reported the beta-blocker measure and about three-quarters of plans reported the bronchodilator measure. For each of the other measures shown, 96 percent or more of plans reported a HEDIS® score.

Source: MedPAC analysis of CMS HEDIS® public use files. <http://www.cms.gov/MCRAdvPartDEnrolData/HEDIS/list.asp>.

methodology would address that problem. (As we discuss in greater detail below, our analysis of the HEDIS results that local PPOs have reported for hybrid measures leads us to believe that, for this year at least—perhaps because it is the initial year of hybrid reporting—the local PPO hybrid results should not be considered reliable.)

Looking at Medicare HMO plans, for the most recent time period, HEDIS performance indicators show a slight improvement over last year’s results.⁴ Of the 46 effectiveness-of-care measures that Medicare plans report, 9 showed statistically significant improvement between the HEDIS 2009 and 2010 results (Table 12-4).⁵ Four of the improved measures are in the family of measures that track the monitoring of drugs with persistent use (180 days or more of ambulatory medication therapy in the year), including the “total” measure, which is the sum of the numerators of four measures for particular drug categories, divided by the denominators for the four measures. Within this family of measures, only one drug category, the monitoring of anticonvulsants, showed no statistically significant change between 2009 and 2010. Another improved measure, persistence of beta blockers,

is no longer used as a CMS star system measure because it applies to few plan enrollees; of the measures shown in Table 12-4, it is the one with the fewest number of plans reporting a result because many plans have too few instances of meeting the measure criteria to have a valid, reportable result.⁶

Measures that show the greatest variation across plans are among the most important measures—intermediate outcome measures

As we have noted in the past (Medicare Payment Advisory Commission 2008, Medicare Payment advisory Commission 2009, Medicare Payment Advisory Commission 2010), for many measures there is wide variation in plan performance. However, some measures show little variation. When a HEDIS measure has little variation and average scores are high, the measure can be withdrawn, as no further major improvement can be expected. For example, NCQA withdrew the measure of the provision of beta blockers after a heart attack—a measure that showed wide adherence across plans (and in the entire health care system). In the last year the measure was reported (the 2007 reporting year), Medicare HMOs

**TABLE
12-5**

Measures of intermediate outcomes show wide variation among HMO plans

Measure	Mean rate	Number of HMOs reporting (out of 297)	Ratio of 90th to 10th percentile of reported rates
Measure for which a lower rate is better			
Poor HbA1c control among diabetics	28.1%	294	4.71
Measures for which a higher rate is better			
Cholesterol level below 100 for diabetics	49.9	295	1.90
Blood pressure controlled for diabetics (<130/80)	33.1	290	2.12
Blood pressure controlled for diabetics (<140/90)	60.2	290	1.64
HbA1c controlled (<8.0%) for diabetics	63.6	293	1.85
Cholesterol controlled for patients with cardiovascular conditions (<100 LDL-C)	55.7	264	1.98
Total rate of control of high blood pressure for hypertensives	59.7	287	1.57

Note: HbA1c (hemoglobin A1c), LDL-C (low-density lipoprotein cholesterol). The rate is the percent of the population to whom the measure applies who obtain the service or meet the criteria.

Source: MedPAC analysis of CMS HEDIS® public use files. <http://www.cms.gov/MCRAAdvPartDEnrolData/HEDIS/list.asp>.

had an average rate of 93.7 percent and commercial plans were at 97.7 percent for the beta blockers measure.

Many of the measures that show the smallest variation are among those that showed significant improvement in the most recent time period (and for which we might not expect to see further improvement). Of the 9 measures showing improvement among HMOs between 2009 and 2010, the 5 measures in Table 12-4 with mean 2010 rates above 89 have very little variation across HMO plans (with the ratio of the 90th to the 10th percentile of scores in the range of 1.1 to 1.16).

The measures with the greatest variation across plans include what are known as intermediate outcome measures—the measures that are perhaps the most important indicators of the quality of care that MA enrollees receive (Table 12-5). Each of these seven measures is a hybrid measure that can include medical record review as a component of the determination of a HEDIS score on such measures. When a plan can report either with administrative-only data or by using a review of a sample of medical records, it is difficult to compare results across plans without knowing the reporting method each plan has chosen. A plan may choose one or the other approach depending on which yields a higher score, or a plan may forgo medical record review if it is deemed too labor intensive and expensive (as in the case of a small

plan). In the case of PPO plans, there may also be an issue with the plan’s ability to obtain medical records from all sources of care an enrollee used, given that a member of a PPO plan can use providers that have no contractual relationship with the health plan. The results that local PPOs have reported for the intermediate outcome measures (such as control of blood pressure) have such a wide range across plans that they do not appear to be entirely credible, as we discuss in greater detail below.

Measures that are newly introduced in HEDIS also tend to show wide variation. The HEDIS measure for recording body mass index (BMI) is a measure that NCQA publicly reported for the first time this year for Medicare plans, but it was included in last year’s CMS HEDIS data release. For the 290 HMOs reporting the BMI measure in the current round, the average share of members who have their BMI evaluated is 38.4 percent, and the ratio of the 90th to the 10th percentile for this measure is 14.5. Typically, new measures show relatively lower scores and high variation initially. In the case of BMI measurement—which has to be extracted from medical records—the variation can be illustrated by comparing two categories of MA HMOs: Kaiser plans and non-Kaiser plans. Among 11 Kaiser plans across the country, the average percentage of enrollees who have their BMI measured and recorded is 91.3 percent (with an average for this measure of 89.6 percent last year among nine Kaiser plans reporting the

**TABLE
12-6**

Among HEDIS® measures showing improved results for HMOs, and other selected measures, differences in mean rates exist based on the age of plans, 2010

Measure and category	Type of measure	Mean rate				Percentage difference between new and established plans
		Cost plans	HMO without cost plans	Established plans	New plans	
Colorectal cancer screening	Hybrid*	69.0%	53.9%	61.7%	46.2%	-25%
Diabetes care:						
HbA1c testing	Hybrid**	93.1	89.4	91.2	87.7	-4
Eye exams	Hybrid**	75.9	62.9	68.2	57.6	-16
Glaucoma screening in older adults	Administrative	73.2	61.5	66.6	56.2	-16
Annual monitoring of patients on persistent medications:						
ACE inhibitors or ARBs	Administrative	77.2	90.1	91.2	88.9	-3
Digoxin	Administrative	84.8	92.3	93.1	91.2	-2
Diuretics	Administrative	77.2	90.3	91.6	89.0	-3
Total rate	Administrative	77.2	89.6	91.0	88.2	-3
Bronchodilator use in pharmacotherapy management of COPD exacerbation	Administrative	79.3	76.1	77.4	74.2	-4

Note: HEDIS® (Healthcare Effectiveness Data and Information Set), HbA1c (hemoglobin A1c), ACE (angiotensin-converting enzyme), ARB (angiotensin receptor blocker), COPD (chronic obstructive pulmonary disease). Administrative measure reporting is based on claims, encounter data, drug data, or electronic records. The rate is the percent of the population to whom the measure applies who obtain the service or meet the criteria. Established plans are those with contracts dating from before 2005. New plans are those with contract start dates from January 2005 or later. Typical number of plans reporting are: cost plans (14 to 19 plans), HMO without cost plans (280 plans), established plans (134 to 141 plans), and new plans (140 to 159 plans).
 * HMOs allowed to use medical record review.
 ** All plan types may use medical record review.

Source: MedPAC analysis of CMS HEDIS® public use files. <http://www.cms.gov/MCRAdvPartDEnrolData/HEDIS/list.asp>.

measure). The average for the remaining 279 reporting HMOs is 36.3 percent (with an average of 29.3 percent last year for 170 plans reporting).

A possible reason for the superior performance of Kaiser plans in the BMI measure is that the information necessary for reporting this measure is recorded in the Kaiser plans' electronic health record systems (the medical record that likely forms the basis of much of Kaiser's HEDIS reporting in many, if not all, of the organization's plans), thereby facilitating accurate reporting that is not as labor intensive as other means of obtaining medical record information. Thus, to some extent, the BMI measure results illustrate an issue that we have raised before, which is that some plans are better able than other plans to collect and report data, making it difficult to fully judge whether there are actual differences in performance among plans in the quality of care for certain measures.

Variation in HEDIS measures by plan type and by new versus old plans persists

As in the past, we find variation within the HMO sector of MA in quality measures. Older HMO plans (for this purpose, those with contracts beginning before 2005) show better results than newer HMO plans, as we show for selected measures (Table 12-6). As has historically been the case, cost-reimbursed plans as a class tend to have the highest average HEDIS scores.⁷ For 26 of 46 measures, cost plans have average scores that are at least 10 percent better than the average of all other HMOs reporting HEDIS measures. Aside from one measure on alcohol and drug abuse, the only measures on which cost plans perform more poorly than other HMOs are the measures for monitoring the persistent use of medications. However, this result may be due to the optional nature of drug coverage under cost plans, which means that these plans

**TABLE
12-7**

For most HEDIS® administrative measures with differences, PPOs perform better than HMOs on average

Measure	Which plan type better?	HOS a source?	HMO		PPO	
			Mean rate	Number of plans reporting	Mean rate	Number of plans reporting
Breast cancer screening rate (total)	HMO	No	69.1%	291	66.1%	84
Osteoporosis management in women who had a fracture	HMO	No	20.7	194	18.1	50
Discussing fall risks (older adults)	HMO	Yes	31.4	274	30.0	76
Initiation and engagement of alcohol/drug dependence treatment	PPO	No	46.2	233	58.1	61
Disease modifying anti-rheumatic drug therapy in rheumatoid arthritis	PPO	No	72.3	216	76.9	62
Systemic corticosteroid pharmacotherapy management of COPD exacerbation	PPO	No	60.9	228	64.1	52
Discussing urinary incontinence (older adults)	PPO	Yes	57.2	246	58.8	78
Receiving urinary incontinence treatment (older adults)	PPO	Yes	35.5	247	37.7	78
Discussing physical activity (older adults)	PPO	Yes	51.4	274	54.8	81
Advising about physical activity (older adults)	PPO	Yes	46.9	275	48.2	81
Osteoporosis testing percent (older adults)	PPO	Yes	67.9	272	73.5	81

Note: HEDIS® (Healthcare Effectiveness Data and Information Set), PPO (preferred provider organization), HOS (Health Outcomes Survey), COPD (chronic obstructive pulmonary disease). The rate is the percent of the population to whom the measure applies who obtain the service or meet the criteria.

Source: MedPAC analysis of CMS HEDIS® public use files (<http://www.cms.gov/MCRAdvPartDEnrolData/HEDIS/list.asp>).

may not have full information on their members’ drug use and services related to drugs.

With respect to local PPOs, for most measures other than the hybrid measures there are no statistically significant differences between the performance of HMOs and local PPOs. For many of the hybrid measures, we believe that anomalies in the data lessen the credibility of reported results for local PPOs.⁸ For the measures that are based on administrative data or survey data, local PPO plans perform better than HMO plans on many measures (Table 12-7). For six of the measures collected through HOS that are included as HEDIS measures, there are significant differences between HMOs and local PPOs, but HMOs perform better than PPOs in only one case. As we discuss below, this difference may be because there are different populations in each of these plan types.

With respect to other plan types, it is difficult to generalize about PFFS plans because of the small number of reporting plans and because reporting is currently optional for these plans.

There are 13 MA regional PPO plans as of 2010, all of which reported some or all HEDIS measures in the last cycle. Although 13 is a small number of reporting entities compared with the nearly 300 reporting HMO plans, it is important to be able to track regional PPO performance because enrollment in such plans is increasing. To some extent, regional PPOs can be compared with local PPOs, though local PPOs are often associated with local HMO plans (and perform at a level similar to the associated plan). In comparing local PPO HEDIS results with those for regional PPOs, local PPOs have HEDIS scores that exceed regional PPO results by 10 percent or more for 12 measures, including seven hybrid measures (with four of the seven being intermediate outcome measures). Regional PPOs do better by more than 10 percent in one of the HEDIS measures of drug interactions that should be avoided.

Enrollment composition of a plan may affect HEDIS results

The MA plan types have differences in the types of beneficiaries who join their plans. As of December 2008,

**TABLE
12-8**

As of December 2008, regional PPOs have more beneficiaries entitled to Medicare on the basis of disability (under age 65) than other plan types while HMOs have more older enrollees

Age ranges	HMO	Local PPO	Regional PPO	PFFS
Under 40	1%	1%	1%	1%
40-64	10	11	17	11
65-75	48	57	57	55
76-80	18	14	13	16
81-85	13	10	8	11
86 or older	10	8	5	7

Note: PPO (preferred provider organization), PFFS (private fee-for-service).

Source: MedPAC analysis of CMS denominator file.

regional PPOs had a larger share of disabled enrollees than other plan types, and HMOs tended to enroll an older population, on average, than local PPOs.

Beneficiaries entitled to Medicare on the basis of disability (those under the age of 65) make up 24 percent of the FFS population, but only 16 percent of MA enrollees are entitled to Medicare on the basis of disability. Regional PPOs have the greatest share of beneficiaries under age 65 of any plan type (18 percent) and HMOs have the smallest share (11 percent) (Table 12-8). The larger proportion of disabled enrollees in regional PPOs may be a factor in explaining why these plans perform more poorly on some measures. It may be more difficult to coordinate care for the under-65 population in general, and people under age 65 include a greater share of individuals with mental disorders, which are the basis of their entitlement to Medicare. Similarly, local PPOs may have better scores on the HEDIS measures collected through HOS because of the make-up of their population.⁹ Further work is necessary to understand why the under-65 population is less likely to enroll in MA plans (e.g., because of the large proportion of Medicare-Medicaid dual eligibles among the under-65 population), and to know whether population distribution differences explain some of the differences in quality measures for regional PPO plans.

CAHPS shows variation across plans and across populations

CAHPS is a survey instrument developed by the Agency for Healthcare Research and Quality that provides information on respondents' experiences with the health care system. CAHPS surveys cover a variety of settings, including surveys of MA enrollees and surveys of beneficiaries receiving care through the traditional FFS

program. Because beneficiaries in the two sectors are surveyed with comparable questions, CAHPS has been used to compare beneficiary experiences in MA and FFS. CMS posts comparison information at the Plan Finder website of medicare.gov, and various studies have used CAHPS to compare the two sectors (Keenan et al. 2009).

This year, we compared the performance of MA plans with FFS Medicare on certain CAHPS measures. To be able to compare the two sectors at a national level, we have adjusted the CAHPS results to attempt to match geographic areas in the two sectors. We use state-level FFS results to arrive at a national rate for FFS to compare with the national MA rate. The FFS rates are adjusted by the state distribution of MA enrollment across the country. In that way, the FFS rate represents the FFS rate for the areas where MA plans enroll their members. After this adjustment, we find that vaccination rates are similar in MA and FFS, while pneumonia vaccination rates are slightly better in MA. We also see that measures of the ease of getting care and access to a specialist are similar, with FFS showing slightly higher rates of beneficiaries reporting that they usually or always can get an appointment with a specialist as well as care for an illness or for routine care as soon as they want it (Table 12-9).

Regional PPO plans have a statistically significantly lower rate for flu vaccination (61 percent) than other MA plan types, which range from 64 percent to 66 percent. Different populations in MA also have different rates of vaccination. Flu vaccination rates are higher for enrollees who have retiree coverage through their MA plan (employer-sponsored MA benefit packages)—many of whom are long-standing plan members and

have “aged in” to their plans on becoming eligible for Medicare. Vaccination rates are about 10 percent higher for employer-sponsored enrollees than for other types of enrollees.

To some extent, flu vaccination rates follow parallel geographic patterns in MA and FFS. The highest reported flu vaccination rate for any MA plan shown on the medicare.gov Plan Finder is 92.48 percent, for a continuing care retirement community in Maryland (which constitutes a special case of a “captive” population), followed by rates in the 82 percent to 86 percent range for plans in Hawaii, Minnesota, upstate New York, and Wisconsin. The highest FFS flu vaccination rates are in Hawaii and South Dakota (75 percent); rates greater than 70 percent are found in 15 states or areas, including Minnesota, upstate New York, and Wisconsin. However, flu vaccination rates in MA plans do not always mirror the rates in FFS. Cost-reimbursed HMO plans have very high flu vaccination rates, with 4 of 17 plans having rates of 80 percent or higher. Cost plan rates of flu vaccination exceed 70 percent in all cases except one, a cost plan in Minnesota. The Minnesota cost plan has a flu vaccination rate of 57 percent compared with the FFS rate for the state of 73 percent.

The variation that we see in CAHPS results below the aggregate level argue for a more refined approach to examining the CAHPS data. It may not be possible to make a statement about the relative performance of MA versus FFS at an aggregate level, and comparisons below the aggregate level should take into account geography as well as other factors that can explain the differences we see in looking more closely at the data—including differences that reveal plan efforts to promote prevention and improve access to care for plan enrollees.

Health Outcomes Survey again shows virtually no difference across plans but for star rating purposes CMS makes distinctions among plans

HOS is a survey of self-reported health status among Medicare health plan enrollees. It is the source of seven HEDIS measures and is also the basis of a determination of whether the health status of a health plan’s enrollees has improved or declined over a two-year period. For each plan in the MA program, a randomly selected sample of enrollees who have been in the plan for at least six months are surveyed in a given year and resurveyed two years later to measure changes in their physical and mental health. Two-year change scores are calculated and beneficiaries’ physical and mental health status is categorized as better,

TABLE 12-9

Overall, MA plans and FFS show similar 2010 CAHPS® results on many measures

Measure	Average	
	MA	Adjusted FFS
Vaccination rates		
Flu	65.5%	65.8%
Pneumonia	67.0	66.0
Access to care measures:		
<i>Members reporting “usually or always”</i>		
Easy to get an appointment with a specialist	90.2	91.3
Get care for an illness as soon as wanted	89.2	90.3
Get routine care appointment as soon as wanted	86.2	87.8

Note: MA (Medicare Advantage), FFS (fee-for-service), CAHPS® (Consumer Assessment of Healthcare Providers and Systems). Adjusted refers to geographic adjustment of results in FFS to match the distribution by state of MA enrollment.

Source: MedPAC analysis of CAHPS® data.

the same, or worse than expected according to a predictive model that takes into account risk-adjustment factors and death. When results are reported, a plan is deemed to have better or poorer outcomes if the plan’s results on the physical or mental health measures differ significantly from the national average across all plans.

The most recent HOS results, for the 2007–2009 cohort, show that none of the 268 plans with survey results was classified as an outlier in physical health status changes for its enrollees—that is, the physical health status changes were within expected ranges and not significantly different from the average across all plans (Table 12-10, p. 304). For mental health, 8 of the 268 plans showed better-than-expected improved mental health outcomes and 13 showed worse-than-expected mental health outcomes. The results have been similar over the past several years, but we note that the most recent cohort includes a much larger number of plans with HOS results—90 more than in the previous year.

The Commission has recommended that CMS examine the HOS survey and its use to determine whether there can be greater distinctions made across plans. Having

**TABLE
12-10**

Medicare HOS performance measurement results show little change in recent years

Cohort	Years	Total number of plans reporting	Mental health outcomes		Physical health outcomes	
			Better than expected	Worse than expected	Better than expected	Worse than expected
Cohort 8	2005–2007	154	9	4	0	0
Cohort 9	2006–2008	187	2	10	0	0
Cohort 10	2007–2009	268	8	13	0	0

Note: HOS (Health Outcomes Survey).

Source: CMS posting of HOS results. <http://www.hosonline.org/surveys/hos/hosresults.aspx>.

greater differentiation among plans on the measures of improvements in health would assist beneficiaries in comparing plans and would also make the survey of greater use to plans, in determining their performance, and to CMS as the agency that evaluates the performance of MA plans. (The evaluation of HOS is under way through a contract that CMS awarded to NCQA.)

While the overall HOS results posted on the HOS website do not show significant differences for most plans, the medicare.gov website does differentiate among plans in the star system (discussed in further detail below). The website shows that the percent of members reporting improved health (after risk adjustment) ranges from 57 percent to 75 percent for physical health and from 65 percent to 86 percent for mental health. On the basis of the relative distribution of these results, no plans received a 5-star rating in the measure for improving or maintaining mental health, and 66 of 255 plans with scores on the measure received the minimum 1-star rating. On the measure for improving or maintaining physical health, there were no 1-star plans; 99 of 255 rated plans received a 5-star rating; and 154 plans received a 4-star rating.

Originally a source of consumer information, CMS star ratings for overall plan quality and contract performance will be the basis of quality bonus payments

In 2008, CMS instituted a star rating system for MA plans and stand-alone drug plans. The star system was put in place as a tool for Medicare beneficiaries and their advisors to evaluate the relative quality of MA plans available in the person’s area and, to the extent

possible, provide a comparison of MA plans with FFS Medicare, consistent with requirements in the statute enacted in the Medicare Modernization Act of 2003. Specifically, Section 1851(d)(4) of the Social Security Act (“information comparing plan options”) called for information to be provided on “plan quality and performance indicators for the benefits under the plan ... including ... disenrollment rates for Medicare enrollees ... information on Medicare enrollee satisfaction ... information on health outcomes, and ... the recent record regarding compliance of the plan with requirements of this part (as determined by the Secretary).” Beginning in 2012, this star rating system will be the basis of quality bonus payments for MA plans.

For a plan’s Part C coverage (Medicare Part A and Part B), the star rating combines selected measures from HEDIS, CAHPS, and HOS, along with certain contract performance measures to arrive at an overall composite star rating and star ratings for five components or domains (see the online appendix to this chapter at <http://www.medpac.gov> for the list of measures). Each of the 36 individual measures in Part C (e.g., each HEDIS measure) also receives a star rating. The overall star rating for a plan not offering drugs is the average of the 36 individual stars for individual measures, each equally weighted. For MA–PD plans, an additional 15 measures are added for Part D (of the 17 applicable to stand-alone drug plans, because the two Part D complaint tracking measures duplicate the MA complaint tracking measure). For the open enrollment period occurring at the end of 2010, CMS used a rating system that combines Part C results with star results for Part D—which include 15 unique measures for MA–PD plans—to arrive at

**TABLE
12-11**

Of 51 measures for MA-PD star ratings, one-third are contract performance measures

Type of measure or measure set	Category	Number of measures (equally weighted)	As a percent of 51 total Part C and Part D measures
HEDIS®	Clinical quality	15	29%
HOS*	Clinical quality, patient-reported results	6	12
CAHPS®			
Vaccine rates**	Clinical quality	2	4
Access to care and satisfaction measures	Patient experience	6	12
Part D			
Clinical quality	Clinical quality	2	4
CAHPS® access and satisfaction	Patient experience	3	6
Contract performance			
Part C	Contract performance	7	14
Part D	Contract performance	10	20
Totals by category			
Contract performance		17	33
Clinical quality measures		25	49
Patient experience measures		9	18

Note: MA-PD (Medicare Advantage-Prescription Drug [plan]), HEDIS® (Healthcare Effectiveness Data and Information Set), CAHPS® (Consumer Assessment of Healthcare Providers and Systems), HOS (Health Outcomes Survey). Numbers may not add due to rounding.

*Four of the HOS measures are used for HEDIS® but not included in that number.

**Used for HEDIS® but not included in that number.

Source: CMS analysis of star ratings data.

an overall plan star rating based on 51 measures. The results for each of the 51 measures are equally weighted in determining a plan’s star ratings—for example, the HEDIS rate for osteoporosis management in women who had a fracture has a weight equal to the CAHPS measure of members’ overall rating of a plan. (For this year, CMS was unable to include disenrollment rates as a factor in the star rating system.)

CMS assigns star ratings through algorithms comparing performance across plans. The overall star rating can include an integration factor, raising the overall rating by up to 0.4 point in the five-star system for plans that have consistently high performance across the individual measures. Plans are not necessarily penalized for not being able to report particular measures. Within each domain, a tolerance level is set for the number of measures that can be absent but that will still permit the plan to be assigned a star rating for the domain (Centers for Medicare & Medicaid Services 2010c).

The star results are posted at the medicare.gov website, where beneficiaries and other users can see overall star levels, domain star levels (groupings such as “managing chronic (long-term) conditions”), and individual measure star results as well as the values that each plan reports (such as actual HEDIS rates for a plan). For the CAHPS measures, the website compares plan results with FFS results in vaccination rates and other CAHPS patient experience measures.

Although many of the clinical quality measures are from the HEDIS set of 46 measures, not all HEDIS measures are used to determine star ratings. CMS uses 21 of the HEDIS measures, including two measures collected through CAHPS (flu and pneumonia vaccine rates) and 4 measures collected through HOS (Table 12-11). CMS has removed several HEDIS measures from the star rating system owing to small numbers and a lack of statistical reliability. The measures previously used but no longer included are depression medication management, mental

**TABLE
12-12****As of November 2010, nearly a quarter of enrollees
are in plans rated at four stars or higher**

	All	HMO	Local PPO	Regional PPO	PFFS
Total enrollment	11,850,666	7,828,154	1,395,826	875,473	1,650,200
Percentage distribution of enrollment by number of stars					
5.0	1%	1%	0%	0%	0%
4.5	14	19	8	0	0
4.0	8	9	16	0	1
3.5	25	31	33	3	5
3.0	32	29	31	45	43
2.5	7	4	4	51	1
2.0	0.03	0.04	0	0	0
Not rated	13	7	8	1	49

Note: PPO (preferred provider organization), PFFS (private fee-for-service).

Source: MedPAC analysis of CMS star ratings and enrollment data.

illness measures, and persistence of use of beta blockers after a heart attack. It appears that CMS is trying to narrow down the measures to those most appropriate and meaningful for the Medicare population (hence the number of HOS measures).

CMS defines a three-star rating as an average rating. As of November 2010, nearly half of MA enrollees are in plans with overall star ratings (Part C and Part D combined) of three or lower or not rated (Table 12-12). There is variation by plan type, with HMO members more likely to be in higher rated plans and regional PPOs having lower star ratings.

One aspect of the star rating system that creates concern is the degree to which star ratings are influenced by measures other than clinical quality measures. For the combined Part C and Part D ratings, 17 of the 51 measures (one-third) are contract performance measures, such as the length of time callers are placed on hold. Because a plan can have a star rating even if a number of measures are not reported or computed, it is theoretically possible to have a star rating with up to 61 percent of measures being contract performance measures (though measures that are found on audit to be materially biased or measures that a plan chooses not to report result in a one-star rating). For the 2011 contract year, the plan with the highest percentage of contract performance measures determining its star rating is a PFFS plan for which 54 percent of the

reported measures are contract performance measures, with a star rating of 2.5. An additional 16 plans have a star rating based on 40 percent or more of the measures being contract performance measures. Among those 16 plans, 10 have 3 stars, 5 plans have 3.5 stars, and 1 plan has 2.5 stars.

We are not suggesting that contract performance measures are unimportant when judging a plan. Such measures are important, and rating plans based on those measures provides useful information to beneficiaries in choosing among plans. CMS, and plan enrollees, should be concerned if a plan performs well on clinical quality measures but shows consistently poor results in contract performance measures.

However, contract performance measures are of a different nature than clinical quality measures. The former type of measure is something that beneficiaries can more directly perceive and act on (e.g., by disenrolling from a plan or not recommending a plan to other beneficiaries—something that is also true of the CAHPS patient experience measures). As such, plans already have an incentive to ensure that they perform well on contract performance measures. In the case of clinical quality measures, beneficiaries are not likely to be aware of how successful a plan has been at achieving appropriate levels of quality and ensuring that appropriate care, including preventive care, is being rendered—either at the level of

an individual enrollee who is under treatment or across the entire enrolled population.

The concern is a question of balance between clinical quality measures and contract performance measures. Rather than having all measures weighted equally, there should be relative weighting so that, as a possible alternative, each contract performance measure carries only half as much weight as an individual clinical quality measure. In general, the relative weighting of the 51 MA–PD measures may need to be reexamined—for example, to potentially give more weight to clinical quality measures that have a greater impact on the quality of care of enrollees than other measures. (CMS recently indicated that it would examine the weighting issue and other issues related to the effectiveness of the star rating system (Bureau of National Affairs 2011).)

MA payment changes in PPACA

Four sets of changes will directly affect MA payments starting in 2012 (fully phased in by 2017):

- County benchmarks will ultimately be set at specified percentages of the per capita FFS Medicare expenditures for county residents.
- CMS will have clearer authority to correct for increased coding intensity in risk scores.
- Plans will be able to earn substantial quality bonuses.
- The proportion of benchmark-to-bid “savings” provided to the plans as rebates for enhanced benefits will be reduced and will be based on quality ratings.

On average, these changes were intended to reduce overall payments (to bring MA payments in line with average FFS spending), redistribute payments from high-spending counties to low-spending counties, and encourage plans to improve their quality.

New method for setting county benchmarks

PPACA changed the formula that sets MA benchmarks and fully phases in an overall reduction by 2017. Beginning in 2012, new benchmarks are phased in over two to six years, depending on how large a reduction is required as determined by FFS spending in each county. The counties are ranked in order of FFS spending. (They must be reranked at least every three years and at CMS’s

discretion could be reranked more frequently.) Beginning with the top quartile of counties (each quartile contains just under 800 counties) with respect to FFS spending, benchmarks will be set at 95 percent, 100 percent, 107.5 percent, and 115 percent of FFS spending, respectively. If the current county-level MA enrollment continues, the benchmarks in 2017 will average 101 percent of FFS (before addition of the 5 percent or 10 percent quality bonuses, as discussed in the PPACA quality section), down from the 2011 average of 113 percent of FFS.

There is an anomaly with the quartile model that is very likely to draw complaints from counties with lower benchmarks than other counties, even though their FFS spending is above the other counties’ FFS spending. The final benchmarks resulting from the quartile formula show a “saw-tooth” pattern (Figure 12-2A, p. 308). The FFS spending range is considerably narrower for the middle two quartiles, and the concentration of FFS spending values is such that many counties will be near the boundaries between the quartiles. In many cases, a county on the low end of a higher spending quartile will end up with a substantially lower benchmark than a county on the high end of a lower spending quartile.

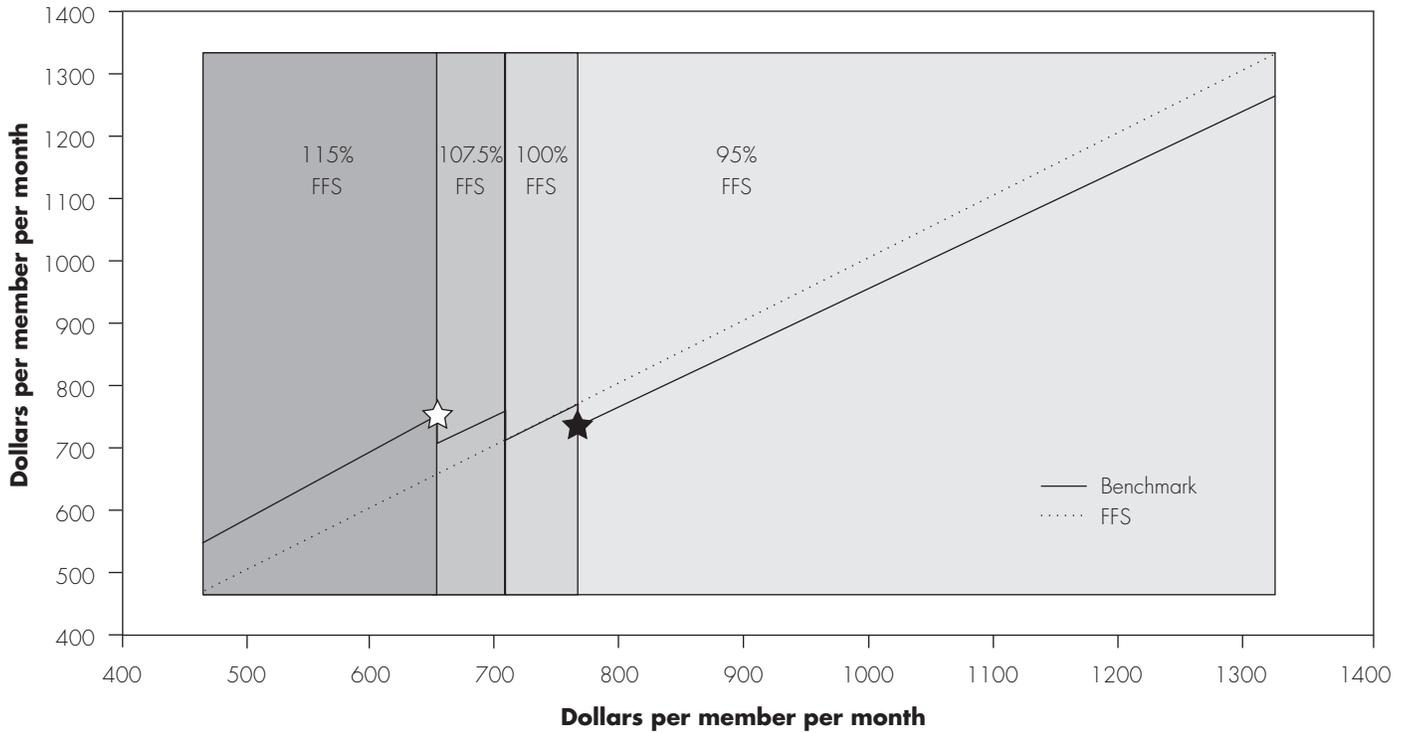
For example, the highest spending county in quartile 1 (represented by the light-colored star in Figure 12-2A) would have FFS spending of \$657 per month and would have a benchmark of \$756 (using 2010 FFS levels and 2017 benchmark rules). At the same time, the lowest spending county in quartile 4 (represented by the dark-colored star in Figure 12-2A) would have FFS spending of \$767 and a benchmark of only \$728. Therefore, a county with FFS spending \$110 higher than another county could have a benchmark \$28 lower than the other county (Table 12-13, p. 309).

The intercounty anomaly can be addressed by adding minimum or maximum conditions on benchmarks between quartiles. Under such an alternative, shown in Figure 12-2B, quartile 1 counties could not have a benchmark above a certain level (\$706, to illustrate); quartile 2 counties could not have benchmarks above a slightly higher level; quartile 3 counties would keep their benchmarks at 100 percent of FFS; and quartile 4 counties could not have benchmarks cut below another level. The adjusted level changes could be calculated to be budget neutral. The result would be a benchmark-setting system in which no county would have a higher benchmark than another county with higher FFS spending.

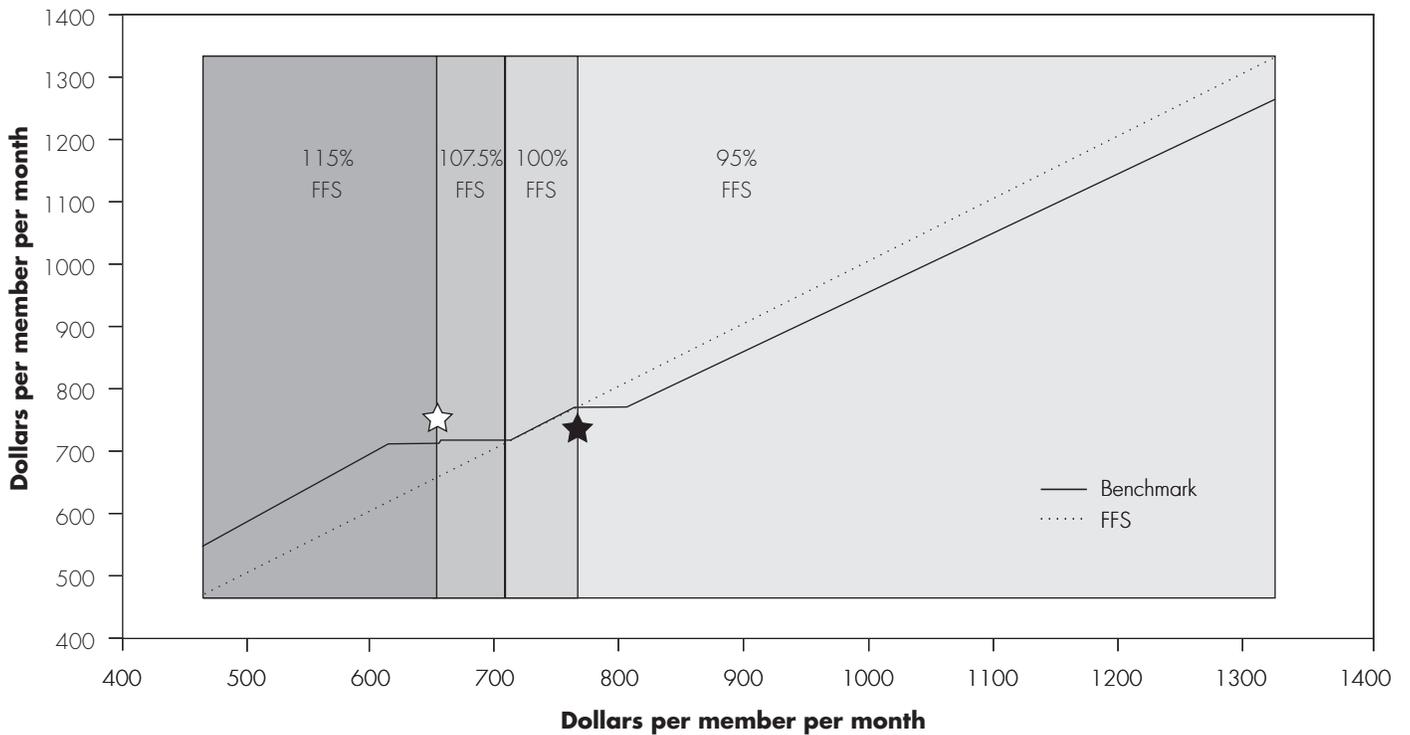
**FIGURE
12-2**

Graphic illustration of MA benchmarks in 2017

12-2A Current quartile formula



12-2B Alternative quartile formula



Note: MA (Medicare Advantage), FFS (fee-for-service). Amounts are given in 2010 dollars. The dollar amounts of the upper range of the first quartile and lower range of the fourth quartile for FFS and the benchmark (from Table 12-13) are shown as two starred points, each of which represents a theoretical county.

**TABLE
12-13**

Tabular illustration of MA benchmarks in 2017

	Quartile			
	1	2	3	4
Quartile FFS factor	115%	107.5%	100%	95%
FFS range	\$469- \$657	\$657-\$710	\$710-\$767	\$767 -\$1,325
Benchmark range	\$539 - \$756	\$706-\$763	\$710-\$767	\$728 -\$1,260
Percentage of:				
Medicare beneficiaries	15%	19%	24%	42%
MA enrollees	16	18	22	44

Note: MA (Medicare Advantage), FFS (fee-for-service). Quartile FFS factor is the percentage by which FFS is multiplied to produce the benchmark. Amounts are given in 2010 dollars. The dollar amounts of the upper range of the first quartile and lower range of the fourth quartile for FFS and the benchmark (displayed in bold) denote the two starred points in Figure 12-2.

CMS will have clearer authority to correct for increased coding intensity in risk scores

Medicare payment to plans is calculated separately for each beneficiary as the plan’s payment rate times the beneficiary’s risk score. The risk scores are based on diagnoses attributed to the beneficiary during the year before the payment year. The diagnoses are reported to Medicare through claims for Medicare FFS beneficiaries or by the plans for MA enrollees. The risk-adjustment model, however, is currently calibrated only on FFS claims. The plans have an incentive to ensure that the providers serving the beneficiary recorded all diagnoses completely so as to receive accurate payment, while providers in FFS have no such incentive to code completely.

CMS has found that diagnoses for MA plan members have been growing more rapidly than the risk scores of FFS beneficiaries. (For 2011, plans project an average risk score of about 1.02. For 2009 they projected an average of 1.00.) Thus, as mandated by previous legislation, CMS has been making an across-the-board adjustment to the scores. Taking into account multiple years of coding differences, CMS reduced risk scores by 3.41 percent for 2010 and 2011. Under PPACA, CMS can continue to correct for the differences it finds without any restrictions for 2012 and 2013, but for 2014 and all future years PPACA specifies minimum reductions that CMS must make in the scores, although CMS has discretion to make larger reductions. The mandated reductions will end once CMS begins risk-modeling based on MA utilization rather than on the current FFS utilization in the model.

PPACA provisions specified that plans with an overall star rating of four or higher would receive a quality bonus; star levels determine rebates

PPACA established a system of quality bonuses for MA plans beginning in 2012, specifying only that it would be a five-star system based on the information collected under Section 1852(e) of the Social Security Act (which differs from the information reported under Section 1851(d)(4) of the Social Security Act—the original basis of the star system—in that there is no mention of the latter section’s “recent record of program compliance,” or what we refer to as contract performance measures). PPACA provided that plans with the highest quality ratings—four stars or higher in a five-star rating system—would have their county benchmark amounts increased by 1.5 percentage points in 2012, 3 percentage points in 2013, and 5 percentage points in 2014 and thereafter. High-quality plans operating in certain counties would be eligible for a doubling of the bonus amount. Plan rebates would also vary according to the number of stars a plan achieved.

The benchmark increase applies to the newly enacted benchmark portion of the total benchmark—that is, the portion set at a specified level of FFS in a county. By the time the bonus payments and new benchmarks are fully phased in, plans with benchmarks at 95 percent of FFS that have a four-star or better rating will have a post-bonus benchmark of 100 percent of FFS, for example. The additional bonus—a doubling of the bonus levels—would be available in “qualifying counties.” Qualifying counties are those that were urban (metropolitan statistical area)

floor counties in 2004, had MA penetration of at least 25 percent as of December 2009, and have FFS expenditures in the county that are lower than the national average for the year the bonus level is being determined.

The star ratings used to provide information to beneficiaries enrolling in MA during the November–December 2010 open enrollment period will be the basis of bonus payments in 2012. In addition, CMS has announced that the star rating will be a combination of the Part C and Part D rating for MA–PD plans (regardless of the proportion of enrollees in the contract who have Part D coverage). A relatively small proportion of current MA enrollees—about 23 percent (Table 12-12, p. 306)—are in plans with star ratings of four or better, which would make them eligible for bonuses.

PPACA reduces rebate levels, and they will vary by star ratings

Star levels will also be a factor in determining rebate levels for plans with bids below their benchmarks. The current proportion of 75 percent of the bid-to-benchmark difference will be reduced, by 2014, to 70 percent for the highest rated plans and to 50 percent as the rebate proportion for the lowest rated plans.

CMS will replace the PPACA bonus system with a program-wide demonstration

On November 10, 2010, CMS announced a program-wide demonstration for the three-year period 2012–2014 whereby CMS would test an alternative approach to providing quality bonuses to MA plans. Under the CMS demonstration (applicable to all MA plans), plans with star ratings of three or higher will be eligible for a bonus of up to 3 percentage points in increased benchmark amounts. Extending quality bonuses to the vast majority of plans is likely to result in far greater program costs than the reward system enacted by PPACA. Using the 2010 ratings that will be the basis of 2012 bonuses, 80 percent of MA enrollees (as of November 2010) were in plans with three or more stars, while 7 percent were in plans with fewer than three stars and 13 percent were in plans that were not rated. The Office of Management and Budget estimates that the demonstration will result in additional program expenditures of \$3 billion over the three-year period (Office of Management and Budget 2011). CMS has stated that the rationale for the demonstration is that it will promote greater improvement in quality among lower rated plans as well as among higher rated plans. Plans below the 4-star level will have an incentive for incremental

improvement (e.g., a plan at 2.5 stars could improve to 3 stars and gain a bonus); because 5-star plans will receive larger bonuses than 4-star plans, 4-star plans will have an incentive to improve their performance (Rice 2011).

The Commission has a long-standing recommendation regarding CMS’s overly broad use of demonstration authority, a recommendation made in 2006 in connection with a program to provide additional payments to oncologists. Later, with respect to two program-wide demonstrations under Part D, the Commission reiterated that “the Secretary should use ... demonstration authority to test innovations in the delivery and quality of health care. Demonstrations should not be used as a mechanism to increase payments. ... [The] demonstration authority is intended for smaller scale projects that help decision makers learn about innovations in financing and delivering Medicare services.” Like the Part D demonstrations, the MA quality bonus payment demonstration is a program that “increases program spending at a time when Medicare already faces serious problems with cost control and long-term financing” (Medicare Payment Advisory Commission 2007).

While we have discussed some of our concerns about the star rating system, extending bonuses to three-star plans raises additional issues, in part because of the combining of Part C (the MA Part A and Part B program) and Part D scores and the degree to which contract performance measures can influence a plan’s ratings. For example, CMS has instituted a new practice of highlighting, on the Plan Finder Tool at the medicare.gov website, those plans that have been poor performers for three consecutive years. Poor performance is defined as having health and/or drug plan summary ratings of 2.5 or less for three consecutive years. With the demonstration setting the bonus threshold at three stars, and with the combining of Part C and Part D measures (which did not occur in the three preceding years), there are nine of these poorly performing MA plans—with 72,000 enrollees—that have a three-star combined rating that makes them eligible for a quality bonus payment (if the plans maintain their contracts in 2012). While these plans have 3-star ratings using the combined Part C and Part D approach, their overall rating for just the Part C measures (excluding the Part D drug measures) is at 2.5 stars for this year.

The Commission has also noted that contract performance measures can be a large component of a plan’s star ratings in some cases. Combining the Part C and Part D ratings adds more administrative measures as a proportion of

the total (because 10 of 15 of the Part D measures for MA drug plans are administrative, with 3 of the 15 being Part D CAHPS measures and two being clinical quality measures) and results in some rating anomalies. To cite one example, one plan has no reported results on the clinical quality of care other than those reported through CAHPS. For the CAHPS vaccination measures, this particular plan received a one-star rating in each measure, the lowest possible star rating, because of the low rate of immunizations. However, the plan received good ratings on other CAHPS measures and on the administrative measures that CMS tracks, resulting in an overall three-star rating and making the plan eligible for a bonus payment under the demonstration. (In the next reporting cycle, this particular plan is expected to have reportable clinical quality measures.)

Another concern with the current design of the quality bonus payment system is that it is oriented toward

rewarding attainment and does not sufficiently reward improvement on quality indicators. When the Commission made its recommendation that MA include a pay-for-performance component, the system was envisioned as providing rewards both for attainment and for improvement (Medicare Payment Advisory Commission 2004); that is, plans that do well on quality indicators would be rewarded, but plans that improved over their past performance would also receive bonus payments. This approach addresses several issues, including the concern that a given plan's high level of performance, when compared with other plans across the country, may be a reflection of the performance of the provider community where the high-performing plan operates. Ideally, another basis on which to judge eligibility for quality bonus payments is in relation to the performance of FFS Medicare in the plan's service area once data are available to compare the two sectors (Medicare Payment Advisory Commission 2010). ■

Endnotes

- 1 HEDIS is a registered trademark of NCQA. HEDIS reporting also includes measures that are collected through the two beneficiary surveys. HEDIS results for flu vaccination rates, pneumonia vaccines, and smoking cessation advice are from the CAHPS survey, and HEDIS includes Health Outcomes Survey results for fall risk management, osteoporosis testing, management of urinary incontinence, and advice about physical activity.
- 2 The star system includes the HEDIS measure of access to primary doctor visits. It is not one of the measures we include in our analysis of the HEDIS results, which are based on “effectiveness-of-care” measures rather than access-to-care measures (in the same way that effectiveness-of-care measures are the basis for the evaluation of plan performance in NCQA’s annual State of Health Care Quality report (National Committee for Quality Assurance 2010)).
- 3 CAHPS is a registered trademark of the Agency for Healthcare Research and Quality.
- 4 We report HEDIS results based on the CMS public use files available at <http://www.cms.gov/MCRAdvPartDENrolData/HEDIS/list.asp#TopOfPage>. Those files contain a classification of organizations by type (e.g., HMO vs. PPO). However, we use CMS contract report data (available at <http://www.cms.gov/MCRAdvPartDENrolData/MEC/list.asp#TopOfPage>) to determine the plan type for each entity reporting HEDIS data. The HEDIS public use files contain some erroneous classifications.
- 5 The HEDIS results we report are simple averages across all plans. Such an approach shows the performance of plans across the country on the HEDIS measures. An alternative approach is to consider weighted averages, which says more about the quality of care rendered to the majority of enrollees in the MA sector. Weighting purely by enrollment, weighted-average HEDIS results for HMOs are higher than the simple average for 19 of the 46 effectiveness-of-care measures (more than 3 percent to 23 percent better), lower for 14 measures (4 percent to 14 percent lower than the simple average), and about the same for 13 measures (within 3 percent of the simple average). For local PPOs, 5 measures are more than 3 percent to 35 percent better, 33 are more than 3 percent to 29 percent worse, and for 8 measures the simple average is within 3 percent of the enrollment-weighted average. However, weighting purely by enrollment is not consistent with the design of HEDIS measures. A more appropriate weighting is by the denominators of the HEDIS measures—information that is not available to the Commission. For example, the nine HEDIS effectiveness-of-care measures for comprehensive diabetes care apply to Medicare beneficiaries of a plan who are diabetics and are 18 to 75 years old—not the universe of the enrolled Medicare population and not the universe of Medicare enrollees of a plan with diabetes (who would be of any age).
- 6 The measure for persistence of beta blockers applies to very few plan members, which, as we noted, is why it is not included as a measure in the star rating system—too few plans can report the measure, and when it is reportable it applies to a small number of people. To provide an idea of how small a number of beneficiaries the measure applies to, we note that data that CMS used to determine HEDIS-like measures in FFS (the Generating Medicare Physician Quality Measurement Results program) showed that, among the more than 30 million beneficiaries in FFS, there were 51,000 beneficiaries to whom this measure applied (0.2 percent of beneficiaries)—the number of beneficiaries who were hospitalized and discharged with a diagnosis of acute myocardial infarction. This value compares with a denominator of 8 million FFS beneficiaries for the HEDIS measure on monitoring of persistent medication use (the summary total measure). As discussed in the preceding note, the numbers also illustrate why, for many measures, a weighted average of HEDIS measures across plans would have to be weighted at the level of the individual measure using the number of beneficiaries to whom each measure applies in each plan; a weighting based on plan enrollment would not produce an accurate MA-wide result for many measures.
- 7 Cost-reimbursed plans technically are not MA plans in that they are governed by the provisions of Section 1876 of the Social Security Act, not the MA provisions of the law. All cost plans are HMOs, but members are not “locked in” to the plan. That is, enrollees are free to use FFS Medicare providers and the program will pay such providers. Profit is not an allowable cost under Section 1876 rules. It is possible that these plans may perform better on quality measures because the costs of setting up and maintaining quality monitoring systems would be allowed as reasonable costs.
- 8 The results that local PPOs have reported for the intermediate outcome measures of control of blood pressure, cholesterol, and blood sugar do not appear to be credible—perhaps because this year is the first year of such reporting for local PPOs. Looking at the details of those measures, we see, for example, that the comprehensive diabetes care measure for blood pressure below 140/90 has an average rate of 49.7 percent among local PPOs (compared with 60.2 percent across HMO plans). The 90th percentile of local PPO rates for this measure is 68.1 percent and the 10th percentile is 1.2 percent (compared with the HMO levels of 74.0 percent and

45.0 percent for the 90th and 10th percentiles, respectively). Of 93 local PPOs in the HEDIS data, 14 are not reporting a value for this measure, and 10 plans are reporting a value less than 1.5 percent, including 3 plans reporting a rate of 0 percent. Among HMOs, 290 of 297 plans are reporting a result, with only one plan at an extremely low level (at 0.62 percent, though this number may be erroneous in the HEDIS files, given that the plan showing this score has very high scores on other measures).

- 9 One reason measures collected through HOS are included as HEDIS measures is to address the concern that there are not enough measures tracking care rendered to the very old. However, as shown in Table 12-7 (p. 301), the differences between HMO results and local PPO results on the seven HOS measures may indicate that there are issues with how these measures are reported. In addition to having a younger distribution of enrollment, local PPOs tend to occupy a market niche as an alternative to medigap coverage among higher income beneficiaries and therefore they may attract different types of enrollees than HMOs—higher income,

more highly educated beneficiaries with a history of good access to health care. Perhaps the HOS results should be adjusted before their use in HEDIS, following the CAHPS example. Before the CAHPS–MA results are used for public reporting and MA plan comparisons, the results are adjusted for response bias with respect to age, education, self-reported physical and mental health status, proxy status (whether the surveyed individual had help completing the survey), and Medicare–Medicaid dual-eligibility status (Medicare Payment Advisory Commission 2010). The HOS results for HEDIS do not have similar adjustments for factors that may affect a person’s response. For example, the HEDIS osteoporosis testing measure from HOS is based on the person’s answer to the question, “Have you ever had a bone density test to check for osteoporosis, sometimes thought of as ‘brittle bones’? This test may have been done to your back, hip, wrist, heel or finger.” (HOS survey instrument 2010). If there is an indication that a respondent has issues with recall, should the individual’s self-report of whether he or she received a particular test be accepted at face value?

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CHAPTER

13

Status report on Part D

Status report on Part D

Chapter summary

Each year the Commission provides a status report on Part D to monitor program performance by examining beneficiary access and program spending, discussed below.

Enrollment in Part D—In 2010, 90 percent of Medicare beneficiaries had Part D drug coverage or its equivalent. Nearly 60 percent were enrolled in Part D plans, slightly over 30 percent had other sources of creditable coverage, and 10 percent had no drug coverage or coverage less generous than Part D. Among those in Part D plans, about 36 percent (about 10 million) received the low-income subsidy (LIS); 600,000 of them may be reassigned to different plans because their previous plan’s premium no longer falls below the 2011 LIS threshold. Some LIS enrollees choose a plan other than their random assignment. In 2010, about 1.7 million LIS members were enrolled in a plan they selected but did not qualify as premium-free. Roughly two-thirds of Part D enrollees were in stand-alone prescription drug plans (PDPs); the rest are in Medicare Advantage–Prescription Drug plans (MA–PDs). Most enrollees report high satisfaction with the Part D program and with their plan.

Benefit offerings for 2011—Sponsors are offering about 30 percent fewer PDPs than in 2010. About 15 percent fewer MA–PDs are available in 2011, reflecting a decline in private fee-for-services plans and local HMOs. The reductions are primarily the result of CMS’s regulations and guidance

In this chapter

- Part D enrollees’ access to prescription drug benefits in 2010
- Costs of Part D
- Measuring plan performance in Part D
- Policy issues

intended to differentiate more clearly between basic and enhanced benefit plans and to reduce the number of plans with low enrollment. These declines should not have a large impact on access, as beneficiaries will have 28 to 38 PDP options along with many MA-PDs, and more PDPs are available to LIS enrollees with no premium. For 2011, a larger share of PDPs are offering some gap coverage, while the benefit offerings for MA-PDs remain largely unchanged.

Part D spending—In 2009, Part D spending totaled \$52.5 billion, and CMS expects it will have reached \$56 billion in 2010. These expenditures cover the direct monthly subsidy that plans receive for their Part D enrollees, reinsurance for very-high-cost enrollees, premiums and cost sharing for LIS enrollees, and payments to employers that continue to provide drug coverage to retirees who are Medicare beneficiaries. In 2009, LIS payments continued to be the largest component of Part D spending. Medicare’s reinsurance payments have been the fastest growing component of Part D spending, primarily due to the difficulty in negotiating rebates for high-cost drugs and biologics that have few, or no, competing therapies.

Between 2007 and 2008, average per capita gross spending for drugs covered in Part D grew by 4.2 percent. Growth in per capita spending varied across different groups, with non-LIS enrollees experiencing lower growth (1.9 percent) than LIS enrollees (7.6 percent). Although percentage growth in per capita spending among MA-PD enrollees was greater than for PDP enrollees, the dollar increase was \$11 for both groups.

Growth in Part D premiums—For the basic portion of the benefit (which does not include premiums for enhanced benefits), CMS estimates the actual average monthly premium at \$30 for 2011, which would be an increase of \$1 over the 2010 average. The estimate reflects CMS’s expectation that some Part D enrollees will switch to plans with lower premiums. We did not calculate the expected average premiums for 2011. With many plans (30 percent of PDPs and 15 percent of MA-PDs) discontinued or consolidated in 2011, there is greater uncertainty about beneficiaries’ choice, making it difficult to calculate the average premium for 2011.

CMS’s quality measures for Part D—CMS publishes 19 performance metrics aggregated into a five-star rating system on the Medicare Prescription Drug Plan Finder at www.medicare.gov. To date, the metrics focus mostly on customer service and enrollee satisfaction. Although the metrics now include some quality measures, additional measures on patient safety and appropriate use of medication could provide further information on quality. ■

**TABLE
13-1**

Parameters of the defined standard benefit increase over time

	2006	2010	2011
Deductible	\$250.00	\$310.00	\$310.00
Initial coverage limit	2,250.00	2,830.00	2,840.00
Annual out-of-pocket spending threshold	3,600.00	4,550.00	4,550.00
Total covered drug spending at annual out-of-pocket threshold	5,100.00	6,440.00	6,447.50*
Maximum amount of cost sharing in the coverage gap	2,850.00	3,610.00	3,607.50
Minimum cost sharing above annual out-of-pocket threshold:			
Copay for generic/preferred multisource drug prescription	2.00	2.50	2.50
Copay for other prescription drugs	5.00	6.30	6.30

Note: *Total covered drug spending at annual out-of-pocket threshold depends on the mix of brand-name and generic drugs filled during the coverage gap. The amount for 2011 (\$6,447.50) is for an individual with no other sources of supplemental coverage filling only brand-name drugs during the coverage gap.

Source: CMS, Office of the Actuary.

Each year since 2006, the Commission has provided a status report on Medicare’s Part D program. To monitor the ability of the program—under its competitive approach—to meet Medicare’s goals of maintaining beneficiary access while holding down program spending, we examine several performance indicators: beneficiaries’ access to prescription drugs (including data on enrollment and changes in Part D plan benefit designs and formularies for 2011), program costs, and quality of services.

Background

Medicare’s payment system for Part D differs from its payment systems for fee-for-service providers. It uses competing private plans to deliver prescription drug benefits, and, instead of setting prices administratively, Medicare’s payments to Part D plans are based on bids submitted by plan sponsors.

Part D uses two avenues of competition designed to give plan sponsors incentives to offer beneficiaries attractive prescription drug coverage while controlling growth in drug spending. First, private plans must compete for enrollees. Ideally, beneficiaries choose a plan that provides access to the medications they need at premiums and copays they are willing to pay, and they reevaluate that decision from time to time. In a second avenue of competition, sponsors may seek to gain market share by annually bidding below regional thresholds to qualify their plans to remain premium-free for most enrollees who receive Part D’s low-income subsidy (LIS).

So far, each year only about 6 percent of Part D enrollees have switched plans voluntarily—a proportion similar to “switchers” in the Federal Employees Health Benefits program. Experience suggests that beneficiaries do not switch plans in large numbers for several reasons. Many beneficiaries are satisfied with their choice. In other cases, they want to avoid the difficulties involved in comparing dozens of plan benefits that differ on many dimensions, such as cost-sharing requirements, formularies, utilization management, and quality of services. These barriers to switching thwart the program’s intended goal of competition. That is, if beneficiaries are unwilling to switch, even when faced with a significant premium increase, sponsors have less of an incentive to compete on premiums and control drug spending.

Medicare defines a standard Part D benefit structure with parameters that change at the same rate as the annual change in beneficiaries’ average drug expenses (Table 13-1). For 2011, the defined standard benefit includes a \$310 deductible and 25 percent coinsurance until the enrollee reaches \$2,840 in total covered drug spending. Enrollees exceeding that total face a coverage gap up to an annual threshold of \$4,550 in out-of-pocket (OOP) spending that excludes cost sharing paid by most sources of supplemental coverage, such as employer-sponsored policies. Enrollees with drug spending exceeding that amount pay the greater of either \$2.50 to \$6.30 per prescription or 5 percent coinsurance.

Before 2011, enrollees exceeding the initial coverage limit were responsible for paying the full discounted price of covered drugs (usually without reflecting

Phasing out the coverage gap

Under the Patient Protection and Affordable Care Act of 2010 (PPACA), Part D's coverage gap will be phased out gradually. By 2020, the law will reduce Part D's cost sharing in the coverage gap from 100 percent to 25 percent. PPACA also temporarily slows the annual rate of growth in Part D's out-of-pocket (OOP) threshold between 2014 and 2019.¹

The law uses different approaches to reduce cost sharing in the coverage gap for brand-name drugs and generic drugs. For brand-name drugs, manufacturers that want to continue including their products in the Part D program must sign contracts with CMS to participate in the coverage gap discount program.² Beginning in 2011, manufacturers provide Part D enrollees a 50 percent discount for brand-name drugs while enrollees are in the coverage gap; that is, once enrollees reach the coverage gap, they pay 50 percent of the plan's negotiated price to the pharmacy as their cost sharing and drug manufacturers pay the remainder. Under the law, the portion paid by the manufacturers

counts toward Part D's annual OOP threshold, which will likely have the effect of increasing the share of Part D enrollees who reach the catastrophic phase of coverage.

Over time, the Part D benefit will also begin to cover more of enrollees' spending in the coverage gap. Beginning in 2013, enrollees' cost sharing for brand-name drugs will decline from 50 percent in the coverage gap (100 percent minus the manufacturers' 50 percent discount) to 47.5 percent, with the benefit covering the remaining 2.5 percent. By 2020, enrollees' cost sharing for brand-name drugs will decline to 25 percent—the same share covered in the initial coverage phase of the defined standard benefit—effectively eliminating a gap in coverage for these drugs.⁴ For generic drugs, in 2011, the Part D benefit begins covering 7 percent of the plan's negotiated price in the coverage gap, leaving the enrollees with 93 percent coinsurance. By 2020, Part D will cover 75 percent and the enrollee will be responsible for 25 percent of the cost of all drugs in the coverage gap. ■

manufacturers' rebates) up to the annual OOP threshold. Because of changes made by the Patient Protection and Affordable Care Act of 2010 (PPACA), beginning in 2011, beneficiaries face reduced cost sharing for both brand-name and generic drugs in the coverage gap (see text box). In 2011, the cost sharing for prescriptions filled during the gap phase is 50 percent for brand-name drugs and 93 percent for generic drugs. An individual with no other source of drug coverage reaches the \$4,550 limit at \$6,447.50 in total drug expenses (the enrollee's spending plus spending the Part D plan covers).³

Part D enrollees' access to prescription drug benefits in 2010

Implementation of the Part D program in 2006 increased the share of beneficiaries who have drug insurance from 75 percent before Part D to about 90 percent. In general, Medicare beneficiaries appear to have good access to

prescription drugs. All individuals have access to dozens of Part D plan options, and many continue to receive drug coverage through former employers. Surveys indicate that beneficiaries enrolled in Part D are generally satisfied with the Part D program and with their plan (Department of Health and Human Services 2010, J.D. Power and Associates 2006, Keenan 2007, PRNewswire 2010, Weems 2008).

In 2010, 90 percent of Medicare beneficiaries had drug coverage, 59 percent were in Part D plans

In 2010, 90 percent of Medicare beneficiaries had prescription drug coverage at least as generous as Part D's defined standard benefit—called creditable coverage (Figure 13-1). In February 2010, 59 percent of 46.5 million Medicare beneficiaries were enrolled in Part D plans. Slightly more than 30 percent of beneficiaries had other sources of creditable coverage, including those with employer-sponsored plans that receive Medicare's retiree drug subsidy, the Department of Veterans Affairs,

TRICARE (the Department of Defense's health benefit for retired military members), and other payers.⁵ An estimated 4.7 million Medicare beneficiaries (10 percent) had no drug coverage or coverage less generous than Part D's benefit. Research indicates that beneficiaries who do not enroll in Part D tend to have lower drug spending, better health, and lower risk scores (Heiss et al. 2006, Riley et al. 2009).

In 2010, about 10 million individuals, or 36 percent of Part D enrollees, received the LIS. Of them, 6.4 million were dually eligible to receive Medicare and Medicaid. Another 3.5 million qualified for the LIS either because they receive benefits through the Medicare Savings Program or the Supplemental Security Income program or because they were determined to be eligible by the Social Security Administration after applying directly to that agency. Among LIS beneficiaries, about 8 million are enrolled in stand-alone prescription drug plans (PDPs) and 2 million are in Medicare Advantage–Prescription Drug plans (MA–PDs).

The share of Medicare beneficiaries enrolled in Part D has grown slightly since the program began, from 55 percent in 2006 to 59 percent in 2010. Most of that growth is due to expanded enrollment in Medicare Advantage plans.

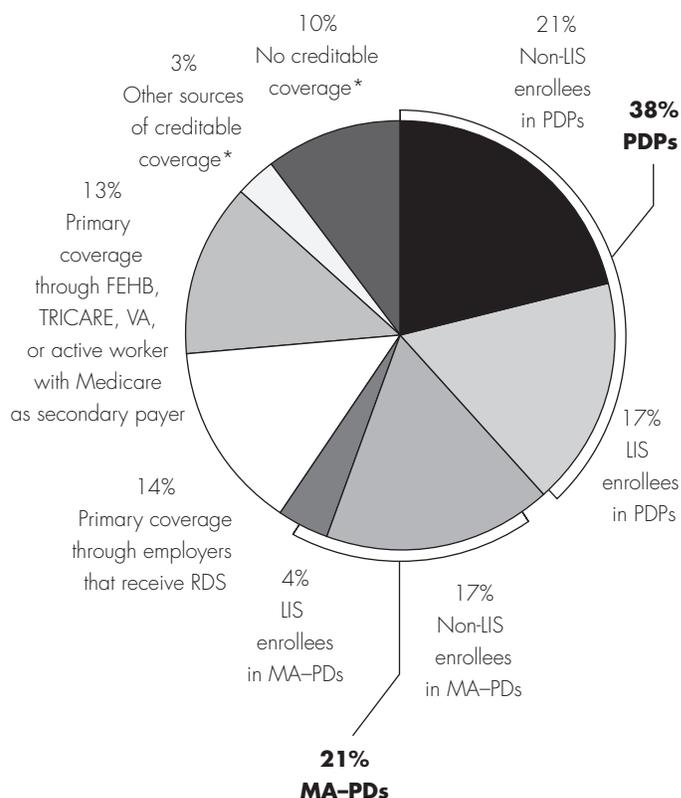
Distribution of enrollment across regions

Part D enrollment varies geographically. In each of the 34 PDP regions across the country, 2008 enrollment ranged between 40 percent and 69 percent of Medicare beneficiaries (Medicare Payment Advisory Commission 2010a). Part D enrollment tends to be lower in states with large employers that receive Medicare's retiree drug subsidy—Michigan and Ohio, for example. In parts of the West (Arizona, California, Colorado, Nevada, and New Mexico), Florida and Hawaii, and some parts of the Northeast (the Pennsylvania/West Virginia region), more than 40 percent of Part D enrollees are in MA–PDs. By comparison, in other parts of the Northeast, Midwest, and southern–central states, less than 20 percent of Part D enrollees are in MA–PDs.

In 2008, Part D enrollees were more likely to be female and minority than the overall Medicare population. Compared with PDP enrollees, beneficiaries enrolled in MA–PDs were less likely to be disabled and more likely to be Hispanic, which may reflect the underlying demographic characteristics of areas where many MA–PDs are located. LIS enrollees were more likely than

FIGURE 13-1

In 2010, 90 percent of Medicare beneficiaries were enrolled in Part D or had other sources of creditable drug coverage



Note: LIS (low-income subsidy), PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), RDS (retiree drug subsidy), FEHB (Federal Employees Health Benefits program), VA (Department of Veterans Affairs). TRICARE is the health program for military retirees and their dependents. Components may not add to 100 percent due to rounding. *Creditable coverage means drug benefits whose value is equal to or greater than that of the basic Part D benefit.

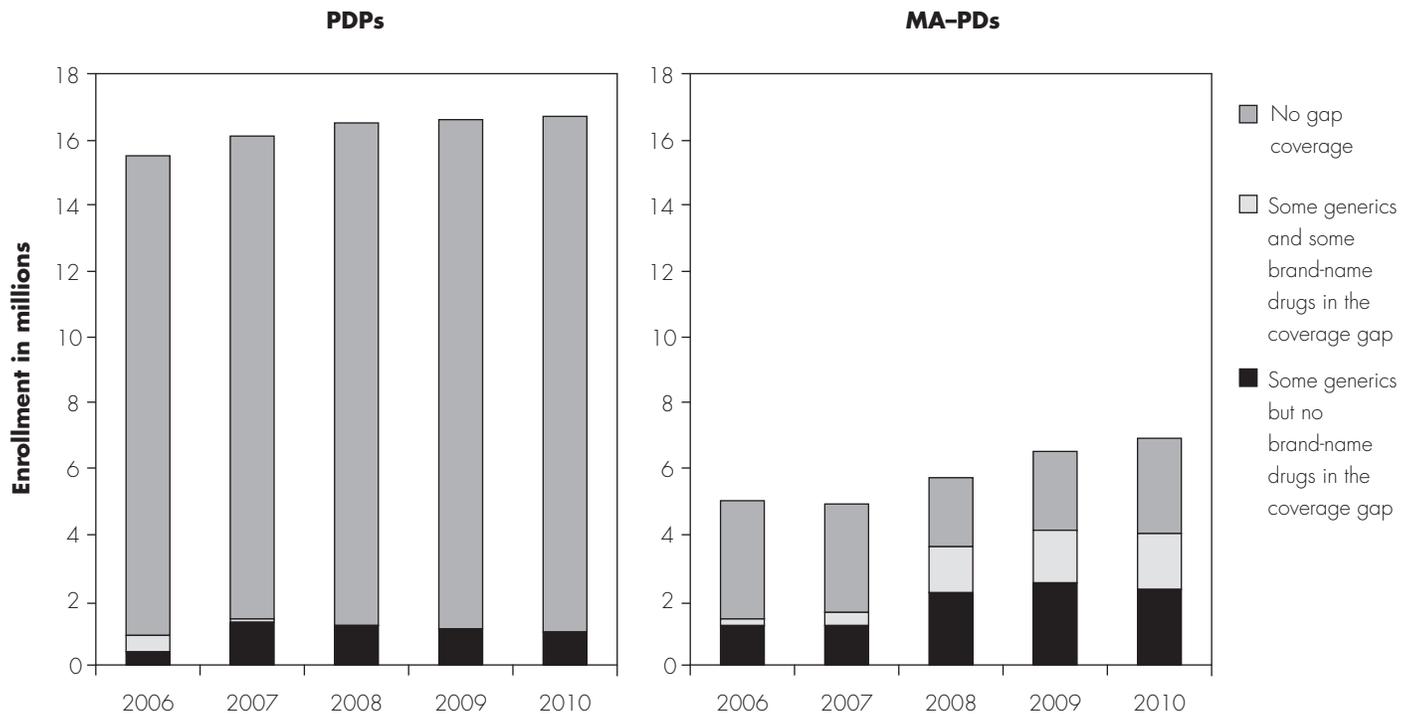
Source: 2010 enrollment information from CMS. <http://www.cms.gov/PrescriptionDrugCovGenIn/>.

Medicare beneficiaries overall to be female, minority, and disabled beneficiaries under age 65.

The share of beneficiaries receiving Part D's LIS also varies considerably by region. In 2008, 50 percent or more of enrollees in Alaska, Louisiana, the Maine/New Hampshire region, and Mississippi received the LIS. By comparison, 30 percent or less of enrollees in the upper Midwest and several central–western states received the LIS. Participation in Part D's LIS program is related to many factors, such as underlying rates of poverty and health status in each region, the degree to

**FIGURE
13-2**

PDP enrollees are less likely to have benefits in the coverage gap



Note: PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]).

Source: MedPAC analysis of CMS landscape and enrollment data.

which a state’s Medicaid program reaches out to enroll eligible individuals, and the criteria states use to determine eligibility for their programs. For example, states can increase the number of residents eligible for the Medicare Savings Program by not counting certain types of assets or sources of income in their eligibility criteria for Medicaid benefits.

Distribution of enrollment across plan types

Most Part D enrollees are in plans other than the Part D standard benefit; these plans are actuarially equivalent to the standard benefit or are enhanced in some way. Actuarially equivalent plans have the same average benefit value as defined standard plans but a different benefit structure (both actuarially equivalent and defined standard plans are referred to as basic benefits).⁶ For example, a plan may use tiered copays (e.g., charging \$7 per prescription for a generic drug and \$50 per prescription for a brand-name drug) rather than 25 percent coinsurance for all drugs. Alternatively, instead of having a deductible, a plan may use cost sharing equivalent to a rate higher than

25 percent. Once a sponsor offers at least one stand-alone PDP with basic benefits in a PDP region, it may also offer a plan with enhanced benefits—basic and supplemental benefits combined, with a higher average benefit value. Medicare does not subsidize supplemental benefits; enrollees must pay the full premium for the additional coverage.

In 2010, 68 percent of PDP enrollees had basic coverage that was actuarially equivalent to the defined standard benefit, most with tiered copays. Another 22 percent of PDP enrollees had enhanced benefits—the typical enhancement being a lower deductible rather than benefits in the coverage gap.⁷ The remaining 9 percent were in defined standard plans. MA-PD enrollees were also predominantly in plans that use copays, with 99 percent in actuarially equivalent or enhanced plans.

Enrollees in stand-alone PDPs are more likely than enrollees in MA-PDs to have a deductible in their plans’ benefit design. In 2010, about half of PDP enrollees paid no deductible or a lower deductible than was prescribed

in the defined standard benefit; the remaining enrollees were in plans with the standard \$310 deductible. By comparison, 98 percent of MA–PD enrollees had a reduced deductible or no deductible. This circumstance reflects the ability of MA–PDs to use Medicare Advantage (Part C) rebate dollars to supplement benefits or lower premiums.⁸ Many MA–PDs use some of their Part C rebate dollars to enhance their Part D benefit by charging no deductible, providing benefits in the coverage gap, or reducing their premium.

The ability of MA–PDs to use Part C rebate dollars to enhance their Part D benefits affects the difference between PDPs and MA–PDs in the availability of plans that offer benefits in the coverage gap (Figure 13-2). In 2010, only 6 percent of PDP enrollees (about 1 million beneficiaries) were in plans that offered benefits in the coverage gap, usually for generic drugs. However, 45 percent of PDP enrollees received Part D’s LIS, which effectively eliminates their coverage gap. By comparison, 58 percent of MA–PD enrollees (about 4.1 million beneficiaries) were in plans that offered gap coverage. Of those enrollees, most were in plans that covered generic drugs but no brand-name drugs.

Use of Part D benefits and share of enrollees reaching the coverage gap

Prescription drugs are used widely by Medicare beneficiaries. According to the Commission’s analysis of 2008 prescription drug event data taken from Part D claims, nearly 92 percent of Part D enrollees filled at least one prescription during the year. Enrollees filled an average of 4.1 prescriptions per month, with higher average utilization among those who received the LIS (4.9 per month) than among beneficiaries who did not (3.6 per month). While LIS enrollees tend to have a greater disease burden than non-LIS enrollees, under Part D they have much lower cost sharing, ranging from no copay to about \$6 per prescription for dual-eligible beneficiaries, who have the most comprehensive benefits. Other LIS enrollees pay 15 percent coinsurance. By comparison, in 2010, median copays for non-LIS enrollees were about \$7 per generic prescription and more than \$75 per prescription for nonpreferred brand-name drugs.

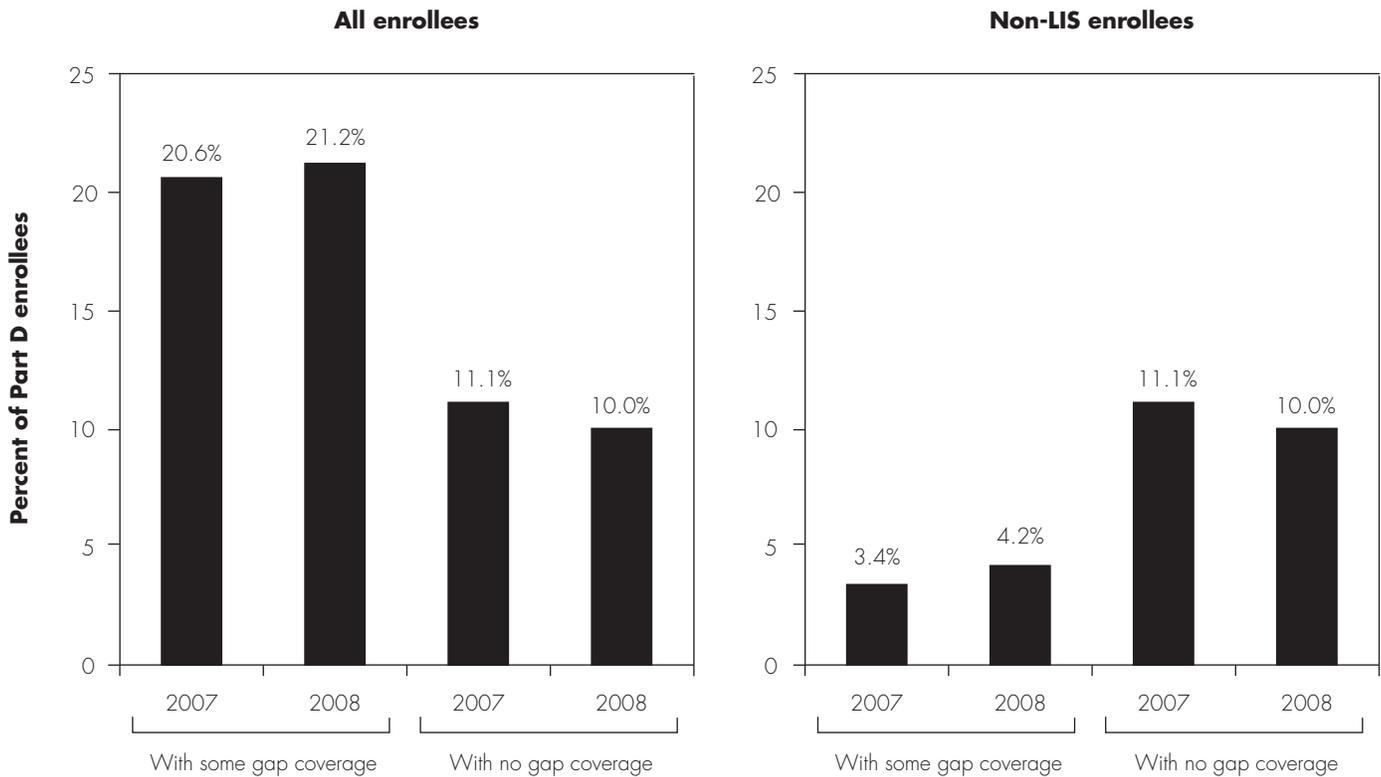
In 2008, the share of Part D enrollees with benefit spending that was high enough to put them in the coverage gap remained stable at around one-third of enrollees (Centers for Medicare & Medicaid Services 2010b). In Part D’s coverage gap, most non-LIS enrollees face 100

percent of the plan’s negotiated cost of the drug, unless they are in a plan that provides some benefits in the gap. In 2008, about 2.8 million beneficiaries (10 percent of Part D enrollees) were exposed to 100 percent cost sharing in the coverage gap, a slight decline from 11 percent in 2007 (Figure 13-3, p. 324). Another 1.2 million non-LIS beneficiaries (4.2 percent) were in enhanced plans that provided some benefits in the coverage gap—usually limited to generic drugs. LIS enrollees, for whom the gap is eliminated, accounted for more than half of the enrollees with higher spending (4.6 million or 17 percent of all Part D enrollees). The share of Part D enrollees with spending high enough to reach Part D’s catastrophic coverage phase remained stable at 9 percent. Of these 2.4 million individuals, about 2 million received the LIS.

Fewer plans overall, but more premium-free plans for LIS beneficiaries in 2011

In 2011, beneficiaries have seen a reduction in the number of plan offerings, but they continue to have many choices of Part D plans. The reduction in plan offerings is primarily the result of recent regulations and guidance issued by CMS intended to differentiate more clearly between basic and enhanced benefit plans as well as to reduce the number of plans with low enrollment.⁹ In 2011, sponsors are offering 1,109 stand-alone PDPs, about 30 percent fewer than in 2010. There are 1,566 MA–PDs available, about 15 percent fewer than in 2010. These decreases have resulted from a decline in the number of local HMOs as well as a reduction by about one-half in the number of private fee-for-service plans offered, reflecting the change in policy that requires these plans to create provider networks. Still, Medicare beneficiaries continue to have 28 to 38 PDP options, along with many (sometimes dozens) MA–PD plans. The number of MA–PD plans available to a beneficiary varies by the county of residence.

In 2011, more PDPs will be available to LIS enrollees at no premium than in 2010 (Figure 13-4, p. 325). Two policies put in place by PPACA have allowed more plans to qualify as premium-free than would otherwise be the case: a new method for calculating the regional benchmarks and a *de minimis* policy.¹⁰ Under its *de minimis* policy, CMS is allowing plans to waive up to \$2 from their premiums to remain premium-free to LIS enrollees. A total of 332 PDPs have premiums at or below the LIS monthly premium subsidy amount for their region, compared with 307 in 2010.

**FIGURE
13-3****Share of Part D enrollees fully exposed to the coverage gap declined slightly in 2008**

Note: LIS (low-income subsidy). All Part D enrollees who receive the LIS do not face a coverage gap. A Part D enrollee reached the initial coverage limit when the total drug spending reached \$2,400 in 2007 and \$2,510 in 2008. An enrollee reached the annual out-of-pocket (OOP) threshold at \$3,850 of OOP spending in 2007 and \$4,050 of OOP spending in 2008. A small proportion of non-LIS enrollees who reached the catastrophic threshold may have had some gap coverage, but it is likely that most did not.

Source: Centers for Medicare & Medicaid Services 2008, Centers for Medicare & Medicaid Services 2010b.

Notable changes for 2011 in benefit design

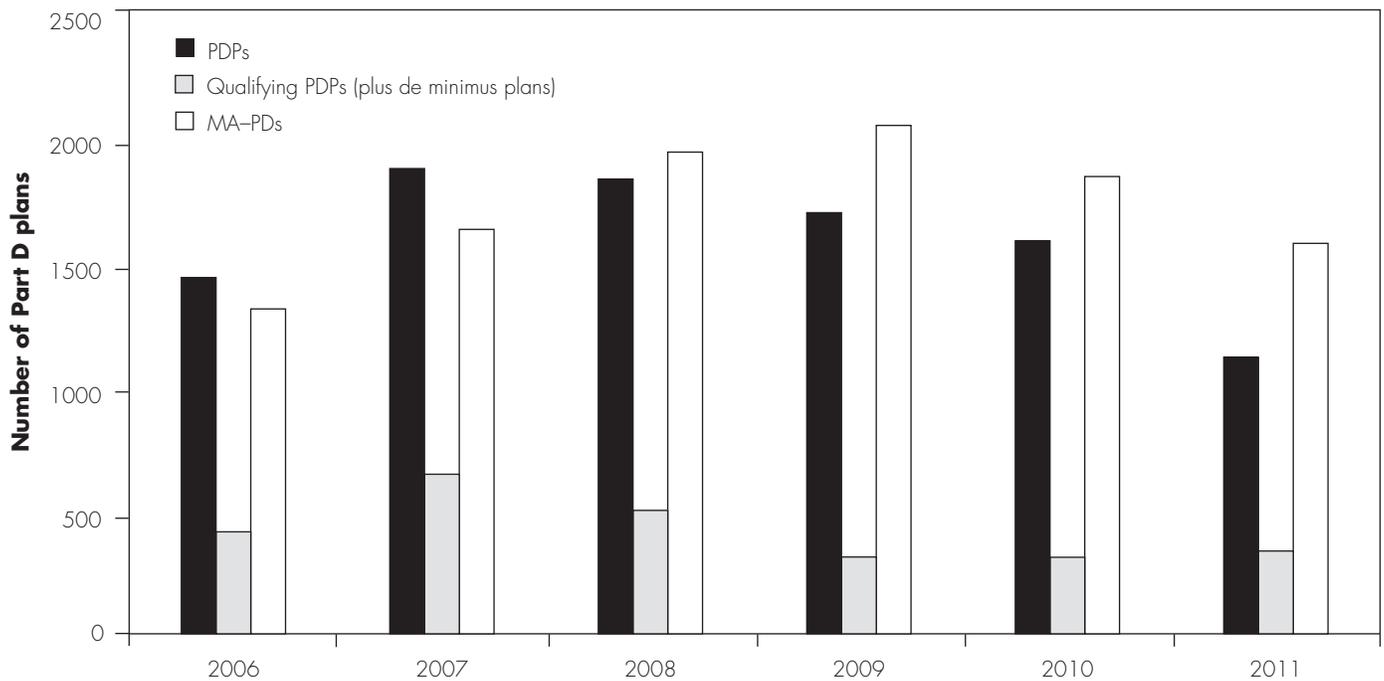
Beneficiaries who reexamined their options for the 2011 benefit year may have found some important changes in plan coverage.

Benefit designs

For the 2011 benefit year, despite the decrease in the number of plans offered, the structure of drug benefits for both stand-alone PDPs and MA-PDs held fairly steady. As in previous years, a smaller share of PDPs have no deductible (42 percent) compared with MA-PDs (87 percent). A majority of PDPs continue to charge a deductible in 2011, with most charging the defined standard amount (\$310).

In 2011, a larger percentage of PDPs provide some gap coverage (Figure 13-5, p. 326). In 2010, about 20

percent of PDPs (about 300 plans out of nearly 1,600 PDPs) included some gap coverage—usually some or all generic drugs but no brand-name drugs. For 2011, that share increased to 33 percent (365 plans out of about 1,100 PDPs). This increase is likely the result of a CMS guidance requiring plan sponsors to offer some coverage in the gap for brand-name drugs if a sponsor is offering two enhanced benefit plans in a given region (Centers for Medicare & Medicaid Services 2010a). By contrast, the share of MA-PDs with gap coverage held steady at just above 50 percent in 2011 (more than 800 of over 1,500 MA-PDs). The extent of coverage in the gap varies from plan to plan. For example, in 2010, 20 percent of PDPs provided coverage in the gap, but the share of generic drugs on the formulary that are covered ranged from 10 percent to 100 percent, with only 2 percent of plans covering any brand-name drugs (Hoadley et al. 2009).

**FIGURE
13-4****Fewer Part D plans overall, but more premium-free plans for LIS beneficiaries in 2011**

Note: LIS (low-income subsidy), PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]). Qualifying PDPs are plans for which LIS enrollees pay no premium because the plans' premiums are at or below a regional premium threshold. De minimis plans are plans that CMS permitted to retain their LIS enrollees because the plan premium was within a small variance from the regional LIS premium threshold.

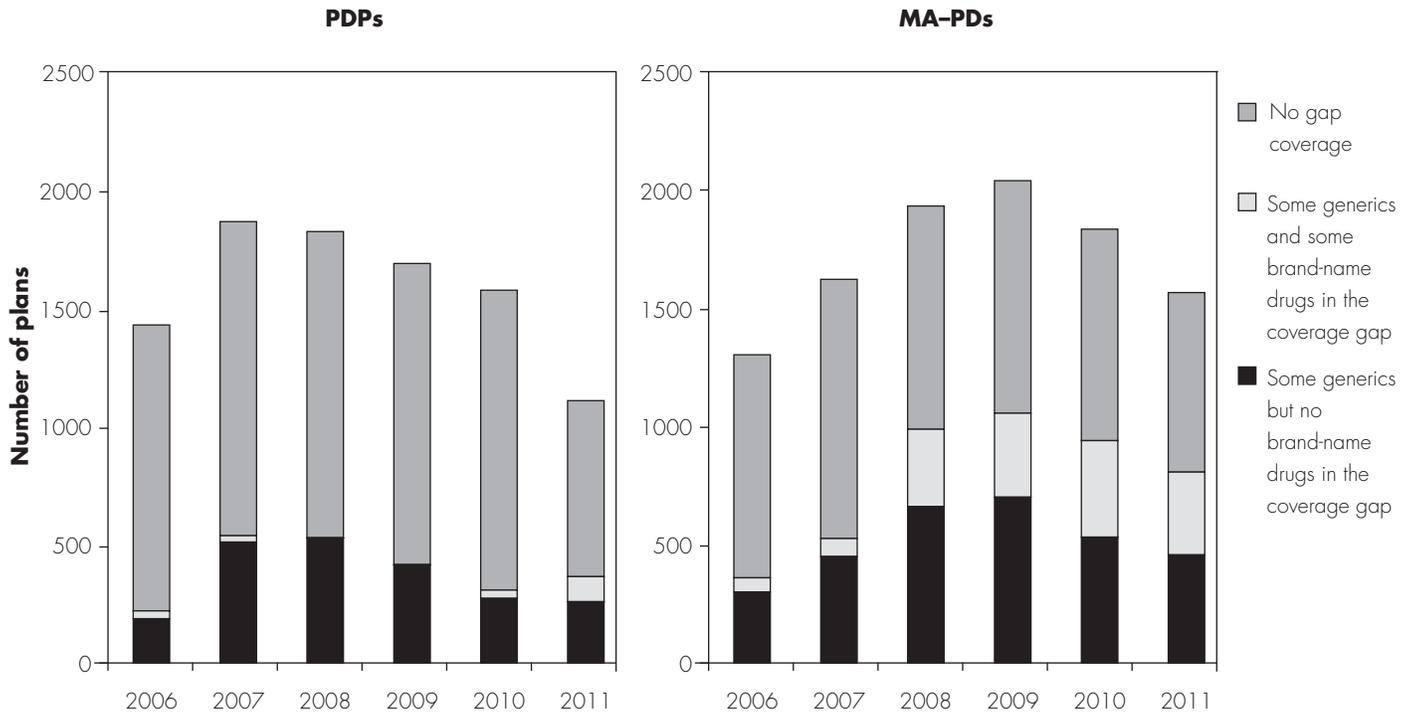
Source: CMS landscape files.

Plan formularies

In Part D, each plan sponsor operates one or more formularies—lists of the drugs the plans cover and the terms under which they cover them—to manage the cost and use of prescription drugs. When designing formularies, sponsors strike a balance between providing enrollees with access to medications and controlling growth in drug spending, which they accomplish by negotiating drug prices and dispensing fees with pharmacies and rebates with pharmaceutical manufacturers and by managing enrollees' utilization. Part D sponsors rely on clinicians—generally physicians and pharmacists who participate on a pharmacy and therapeutics committee—when deciding which drugs to list. Sponsors also select the cost-sharing tier for each listed drug and whether any utilization management tools apply, taking into account clinical and financial factors (such as how tier-placement decisions might affect sponsors' rebates from drug manufacturers). Making all

medications readily accessible at preferred levels of cost sharing can lead to Part D premiums that are high relative to a sponsor's competitors, whereas an overly restrictive formulary may keep a plan's premium competitive but may make the plan less attractive to potential enrollees because it covers a limited number of drugs.

Under contract with the Commission, researchers at NORC at the University of Chicago, Georgetown University, and Social and Scientific Systems analyzed Part D formulary data. CMS generally requires that plan formularies include at least two drugs in each therapeutic category and class unless only one drug is available. For this analysis, drugs are defined at the level of chemical entities—a broad grouping that encompasses all of a chemical's forms, strengths, and package sizes that combines brand-name and generic versions of specific chemicals (Medicare Payment Advisory Commission 2008).

**FIGURE
13-5****MA-PDs are more likely than PDPs to offer benefits in the coverage gap**

Note: PDP (prescription drug plan), MA-PD (Medicare Advantage–Prescription Drug [plan]).

Source: MedPAC analysis of CMS landscape files.

The number of drugs that sponsors list on a formulary is one way to measure beneficiaries' access to prescription drugs under Part D. A plan's use of utilization management tools—such as its processes for nonformulary exceptions, prior authorization, quantity limits, and step therapy requirements—is another way to measure access.¹¹ For example, in some cases unlisted drugs are covered through the nonformulary exceptions process, which is relatively easy with some plan sponsors and more burdensome with others.

For the seven largest plans, which accounted for nearly half of the enrollment in stand-alone PDPs in 2010, the shares of all distinct chemical entities (drugs) listed on their formularies remained stable or saw modest changes between 2010 and 2011 (Table 13-2). Among the top seven PDPs, three plans—AARP MedicareRx Preferred, First Health Part D Premier, and CVS Caremark Value—saw a decrease in the share of drugs listed in 2011. However, the actual number of drugs listed on the formulary increased between 2010 and 2011 for First

Health Part D Premier, because the number of distinct chemical entities listed on CMS's formulary reference files also increased between 2010 and 2011.

The use of utilization management tools in Part D—including quantity limits, step therapy, and prior authorization—has grown in the past few years. Sponsors use such tools for drugs that are expensive; potentially risky; or subject to abuse, misuse, and experimental use. They also want to encourage the use of lower cost therapies. For 2011, the top seven stand-alone PDPs increased the share of drugs on plan formularies with some type of utilization management. The increase was generally modest, ranging from 1 percent to 4 percent for all but one plan. Among the top seven plans, two plans—Community CCRx Basic and CVS Caremark Value—have the highest share of drugs with utilization management in 2011. CVS Caremark Value (previously SilverScript Value) experienced the largest expansion in the share of drugs with utilization management between 2010 and 2011.

**TABLE
13-2**

Formularies for stand-alone PDPs with highest 2010 enrollment

Stand-alone PDPs with the highest 2010 enrollment	Enrollment, 2010 (in millions)	Percent of drugs on formulary**		Percent of drugs with any utilization management***	
		2010	2011	2010	2011
AARP MedicareRx Preferred	2.8	100%	94%	25%	27%
AARP MedicareRx Saver*	1.5	93	94	25	27
Humana PDP Enhanced	1.3	94	94	31	35
Community CCRx Basic	1.2	76	76	39	41
First Health Part D Premier	0.6	86	83	34	36
CVS Caremark Value	0.6	84	75	16	41
WellCare Classic	0.5	69	69	24	27

Note: PDP (prescription drug plan). Enrollment figures are based on September 2010 enrollment. The number of drugs on the formulary for 2010 is 1,107; for 2011, the number is 1,168.

*Plan not offered in 2011 (merged with AARP MedicareRx Preferred according to CMS's crosswalk file for 2011). Not all AARP MedicareRx Saver plan enrollees are automatically moved to the AARP MedicareRx Preferred plans.

**The denominator is the number of unique chemical entities based on CMS formulary reference files.

***Any utilization management includes the use of prior authorization, quantity limit, and step therapy requirements.

Source: NORC/Georgetown University/Social & Scientific Systems analysis for MedPAC of formularies submitted to CMS. MedPAC analysis of Part D enrollment data.

LIS enrollees and plan reassignments

Part D's LIS covers the cost of an enrollee's premium up to a specified amount. Each year, CMS sets an LIS premium threshold for each PDP region based on a weighted average of plans' premiums for basic benefits. As long as a plan's premium falls below the required benchmark, LIS beneficiaries pay no premium or a reduced premium if they remain in the plan.¹² However, LIS beneficiaries may be reassigned automatically on a random basis to a different PDP each year if their current plan's premium is too high. LIS enrollees may remain in their existing plan if they choose to pay the additional premium above the LIS benchmark; CMS refers to these individuals as "choosers."

Numbers of LIS reassignees

As of December 2010, we expect about 2.1 million LIS enrollees to be in plans that do not qualify as premium-free in 2011.¹³

- CMS estimates that it will have reassigned 600,000 LIS enrollees to different plans because their previous plan's premium no longer falls below the 2011 threshold (Hoadley et al. 2010). This number of reassignees is about half the number of reassignments for 2010. The new method for calculating the regional

benchmarks and the de minimis policy CMS has implemented for 2011 has reduced the number of reassignments (see section on plan availability, p. 323).

- Some LIS enrollees will have been reassigned to a qualifying plan offered by the same sponsoring organization. Because many sponsors use the same formulary for all their plans, these reassigned individuals are less likely to face significant changes.
- In 2010, about 1.7 million LIS members were enrolled in a plan they had selected (i.e., they did not remain in a randomly assigned plan) but that plan did not qualify as premium-free for 2010. Because of turnover in qualifying plans and the de minimis policy, some of their plans may qualify as premium-free in 2011.

LIS choosers

Some LIS enrollees choose to remain in their current plan rather than be reassigned to a new one. If at any time an LIS enrollee selects a plan different from the random assignment, CMS no longer reassigns the individual. By one preliminary estimate, about 2.5 million LIS enrollees fell into this "chooser" category for 2010 (Hill 2009). Some of these individuals were in plans that qualified as premium-free for 2010, were in MA-PDs,

Closer look at low-income subsidy choosers' choice of plans

In 2010, slightly more than 1.7 million beneficiaries were in stand-alone prescription drug plans that required them to pay some portion of the plan premiums out of pocket because the plan premiums exceeded the regional benchmarks. About two-thirds of enrollees paid \$10 or less per month in out-of-pocket premiums.

- Of the beneficiaries paying \$10 or less in monthly premiums, about a quarter paid \$2 or less. Had the de minimis policy been in effect, these beneficiaries would likely have had their premiums waived.

- Nearly 400,000 beneficiaries were enrolled in basic plans that required payment of additional premiums of between \$10 and \$45 per month, with a premium obligation that averaged \$14 per month.
- About 300,000 beneficiaries were enrolled in enhanced plans paying, on average, \$22 per month in out-of-pocket premiums, and some paid a premium as high as \$87 per month. ■

or participated in state pharmacy assistance programs. About 1.7 million LIS enrollees were in plans that did not qualify as premium-free; they received a letter from CMS notifying them that they could either switch to a qualifying plan or remain in the same plan and pay the difference between the plan's premium and the threshold amount that Medicare covers in the region. The premium amount such individuals need to pay varies across plans, ranging from 10 cents to more than \$80 per month. The most common amount is \$8 to \$10 per month (see text box).

Effects of switching plans

Beneficiaries who switch plans and the physicians and pharmacies who serve them could face transition issues as they change formularies. For example, an enrollee may need to negotiate transition supplies of drugs and try to navigate different coverage rules. The changes made by PPACA may lessen the burden on the LIS beneficiaries who are switched to different plans. Under the new law, LIS beneficiaries must be informed of the formulary differences and their right to request exceptions within 30 days of reassignment to a new plan. Part D enrollees who do not receive the LIS also face transition issues when they switch plans, and enrollees who remain in the same plan may still face some transition issues if their plan's formulary changes. In addition, plan sponsors are required to have a transition policy in place to ensure access to medications not on the new plan's formulary during the first 90 days.

Costs of Part D

To monitor Part D's costs, we examine aggregate program spending, per capita spending, trends in plans' bid amounts, trends in the prices at the pharmacy counter, enrollees' premiums, and plans' cost-sharing requirements. Spending for high-cost drugs and biologics is driving some components of Part D spending to grow more rapidly than others, and the Commission is concerned that the current competitive system may not be well-suited to deal with this rapid growth.

Aggregate program costs

Medicare pays sponsors three major types of subsidies on behalf of each enrollee in its plans:

- **Direct subsidy**—Medicare makes a monthly payment to plans set as a share of the national average bid for Part D basic benefits, adjusted for the risk of the individual enrollee.
- **Reinsurance**—Medicare subsidizes 80 percent of drug spending above an enrollee's annual OOP threshold. Reinsurance reduces the risk for Part D sponsors by providing greater federal subsidies for the highest cost enrollees.
- **Low-income subsidy**—Medicare pays projected LIS benefits to the plan to cover expected cost sharing and premiums for enrollees who are eligible for the LIS.

**TABLE
13-3****Medicare's reimbursement amounts for Part D on an incurred basis**

	Calendar year				
	2006	2007	2008	2009	2010*
In billions of dollars					
Direct subsidy	\$17.6	\$18.1	\$17.7	\$18.8	\$19.1
Reinsurance	6.0	8.1	9.4	10.3	11.3
Low-income subsidy	15.1	16.8	18.0	19.6	21.5
Retiree drug subsidy	3.8	3.9	3.8	3.8	4.0
Total	\$42.5	\$46.8	\$48.9	\$52.5	\$56.0
Annual percentage change					
Direct subsidy	N/A	2.7%	-2.3%	6.2%	2.0%
Reinsurance	N/A	33.7	17.2	9.5	9.4
Low-income subsidy	N/A	11.0	7.5	8.8	9.7
Retiree drug subsidy	N/A	1.4	-1.1	0.3	5.5
Total	N/A	9.9	4.7	7.3	6.6

Note: N/A (not applicable). The numbers reflect reconciliation amounts. Most enrollees paid premiums directly to Part D plans and those amounts are not included in this table. On a cash basis, the Board of Trustees estimates that premiums paid by enrollees totaled \$3.5 billion in 2006, \$4 billion in 2007, \$5 billion in 2008, \$6.1 billion in 2009, and \$6.6 billion in 2010. Totals may not sum due to rounding.

*Estimated.

Source: MedPAC based on Table IV.B.10 of the Medicare Board of Trustees' report for 2010.

The first two types of subsidies combined average 74.5 percent of the cost of basic Part D benefits for a non-LIS enrollee. Medicare also establishes symmetric risk corridors separately for each plan to limit plans' potential losses or gains by financing a portion of any higher-than-expected costs or by recouping a portion of higher-than-expected profits.

Low-income subsidy continues to be the largest share of Part D costs

Between 2006 and 2009, incurred reimbursements for Part D (including spending for the retiree drug subsidy) grew from \$42.5 billion to \$52.5 billion (Table 13-3). In 2009, the total consisted of \$18.8 billion in direct subsidy payments to plans, \$10.3 billion in payments for individual reinsurance, \$19.6 billion for the LIS, and \$3.8 billion in retiree drug subsidy (RDS) payments. Medicare's RDS subsidizes employers who provide primary drug coverage to their retirees that is at least as generous as Part D. CMS's Office of the Actuary estimated that Part D spending would total about \$56 billion in 2010 (Boards of Trustees 2010).

In 2009, spending for the LIS continued to be the largest component of Part D spending. Moreover, substantial portions of other categories of spending were made on behalf of LIS enrollees. Although only 36 percent of Part D enrollees receive the LIS, these recipients tend to use more medications than non-LIS enrollees. As a result, a disproportionate share of spending for the direct subsidy and for individual reinsurance also reflects benefits for LIS enrollees.¹⁴

Medicare payments for individual reinsurance grew considerably faster than other components of Part D spending in the first few years of the program. The main factor driving this growth in reinsurance spending was the trend in costs for drugs on plans' specialty tiers, which typically are higher priced products that have few, or no, therapeutic substitutes. For example, between 2007 and 2008, prices paid for drugs on specialty tiers grew by 18 percent compared with nearly 9 percent for all Part D drugs. Even after taking generic substitutions into account, the growth rate remained at 18 percent, indicating that there were almost no generic substitutions for these drugs. In contrast, prices remained stable for all Part D

**TABLE
13-4**

Average gross per capita spending per month for Part D covered drugs, 2007–2008

	2007–2008			
	2007	2008	Difference (in dollars)	Percent change
All Part D	\$212	\$221	\$9	4.2%
Plan type				
PDP	239	250	11	4.6
MA–PD	151	162	11	7.3
LIS status				
LIS	301	324	23	7.6
Non-LIS	156	159	3	1.9

Note: PDP (prescription drug plan), MA–PD (Medicare Advantage–Prescription Drug [plan]), LIS (low-income subsidy). Part D prescription drug event (PDE) records are classified into plan types based on the contract identification on each record. For purposes of classifying the PDE records by LIS status, monthly LIS eligibility information in Part D’s denominator file was used. Estimates are sensitive to the method used to classify PDE records to each plan type and LIS status. Gross drug spending includes all payments to pharmacies, including payments by drug plans, Medicare’s LIS, and beneficiary out of pocket.

Source: MedPAC analysis of Medicare Part D PDE data and denominator file from CMS.

drugs when generic substitution was taken into account (MaCurdy 2010).

Although Part D plan sponsors have an incentive to control drug spending, the degree to which they can control spending is weaker for single-source drugs and biologics. If one drug can be substituted for another, a plan can bargain with manufacturers that want their product placed on the plan’s formulary in a favorable position (e.g., on a preferred tier rather than on a nonpreferred tier). But if a plan must cover an innovator drug that has no therapeutic substitute, which is the case for single-source drugs and most biologics, it has little negotiating power over the drug’s price.

To control spending on these high-cost drugs, many plans have high cost sharing for drugs on specialty tiers and enrollees may not appeal the level of coinsurance charged. For 2010, in plans with specialty tiers, enrollees typically faced 30 percent coinsurance for drugs listed on that tier.¹⁵ Beneficiaries who regularly use drugs on a specialty tier are likely to reach the coverage gap in a short time and face 100 percent coinsurance until their drug spending reaches the catastrophic limit. If beneficiaries are able to continue paying for the drug during the coverage gap, they will receive catastrophic coverage for several months of the year, while the plan’s liability is limited to 15 percent of all covered drug spending for the rest of the year. LIS beneficiaries use a disproportionate share of high-cost

drugs and biologics, and most of the cost sharing is picked up by Part D’s LIS.

Per capita spending

Under the Part D program, payments to plans are determined based on the average of bids plan sponsors submit to CMS each year. The bids are intended to reflect the expected costs for a Medicare beneficiary of average health; CMS adjusts payments to plans based on the actual health status of the plans’ enrollees.

In 2007 and 2008—the latest years available for prescription drug event data—average per capita spending for drugs covered in Part D for MA–PD enrollees was lower than that for stand-alone PDP enrollees, and average per capita spending for LIS enrollees was about double that for non-LIS enrollees (Table 13-4). Per capita drug spending also varied across PDP regions, even after adjustments were made for differences in demographic characteristics, health status, and prices (see text box).

Between 2007 and 2008, average per capita spending per month grew by 4.2 percent (Table 13-4), but the growth rate varied widely across groups of beneficiaries. Most notably, the growth in per capita drug spending for non-LIS enrollees was significantly lower (1.9 percent) than that for LIS enrollees (7.6 percent). Although the growth in per capita drug spending among MA–PD enrollees

Regional variation in prescription drug use

Regional variation in Medicare spending continues to receive considerable attention. Studies, including work by the Commission, have consistently found substantial variation across regions, even after adjustments are made for differences in demographic characteristics, health status, and prices (Medicare Payment Advisory Commission 2009, Medicare Payment Advisory Commission 2011).

Our previous work found that average per capita spending for drugs covered under Part D varies widely across prescription drug plan regions. For example, in 2008, average per capita spending nationally was \$2,545, with the lowest spending region 22 percent below the average and the highest spending region 34 percent above the average. Although adjusting for regional differences in demographic characteristics, health status, and prices reduces the variation in spending, average per capita drug spending still varied considerably, ranging from 12 percent below the national average to 23 percent above the national average (Medicare Payment Advisory Commission 2010a).

In our most recent work on regional variation, we found that beneficiaries' drug use (i.e., drug spending adjusted for variations in prices, demographic characteristics, and health status) varied across regions, although the variation was considerably less than unadjusted drug spending (Medicare Payment Advisory Commission 2011).

For example, drug use for beneficiaries living in the area at the 90th percentile was 21 percent higher than for beneficiaries living in the area at the 10th percentile, while the comparable figure for drug spending was 39 percent. Drug use in the highest use area is about 1.7 times that in the lowest use area (Table 13-5).

These findings may have different policy implications than for Part A and Part B services that are paid under the fee-for-service system, since under Part D competitive bidding by plan sponsors determines what Medicare ultimately pays for the Part D benefit as well as what enrollees pay in plan premiums. ■

TABLE 13-5

Drug use has less regional variation than drug spending, but differences remain

Measure of variation	Drug spending	Drug use
Ratio of 90th to 10th percentile	1.39	1.21
Ratio of maximum to minimum	2.14	1.68
Average distance from the mean (PMPM)	\$20	\$12

Note: PMPM (per member per month). Drug spending is average gross drug spending among Part D enrollees. Drug use is per capita drug use among Part D enrollees in each area. Areas are defined as metropolitan statistical areas for urban counties and rest-of-state nonmetropolitan areas for nonurban counties.

Source: MedPAC analysis of 2007 and 2008 beneficiary-level Medicare spending from prescription drug event data.

was greater than that for stand-alone PDP enrollees (7.3 percent compared with 4.6 percent), growth in terms of the dollar increase was the same for both groups (\$11).

National average bid

Between 2010 and 2011, national average costs for basic Part D benefits are projected to grow at slightly more than 1 percent (Table 13-6, p. 332). During this period, the monthly payment to sponsors (i.e., the direct subsidy component) of Part D benefit spending is projected to decrease by about 3 percent, while the reinsurance component is expected to grow by about

8 percent.¹⁶ Although the growth in the reinsurance component is considerably lower than the 20 percent growth seen between 2008 and 2009, the Commission has been concerned about the high rate of growth in these payments, reflecting higher estimates for the cost of Part D's catastrophic coverage.¹⁷ We will continue to watch this issue with interest, encouraging CMS to do the same.

Part D drug prices

Most plan sponsors do not negotiate drug prices directly with pharmaceutical manufacturers. Instead, sponsors engage in two separate negotiations:

**TABLE
13-6**

National average bid and components of average prospective monthly payments per enrollee for basic coverage

	2006 ^a	2007 ^b	2008 ^c	2009 ^d	2010 ^d	2011 ^d
Amounts in dollars						
National average monthly bid						
Base beneficiary premium	\$32.20	\$27.35	\$27.93	\$30.36	\$31.94	\$32.34
Monthly payment to sponsors	60.10	53.08	52.59	53.97	56.39	54.71
Subtotal	92.30	80.43	80.52	84.33	88.33	87.05
Expected individual reinsurance	<u>33.98</u>	<u>26.82</u>	<u>29.01</u>	<u>34.73</u>	<u>36.92</u>	<u>39.77</u>
Total average benefit cost	126.28	107.25	109.53	119.06	125.25	126.82
Annual percent change						
National average monthly bid						
Base beneficiary premium	N/A	-15%	2%	9%	5%	1%
Monthly payment to sponsors	N/A	-12	-1	3	4	-3
Subtotal	N/A	-13	0	5	5	-1
Expected individual reinsurance	N/A	-21	8	20	6	8
Total average benefit cost	N/A	-15	2	9	5	1

Note: These amounts reflect averages based on bids to provide basic Part D benefits; they do not net out subsequent reconciliation amounts with CMS. They were calculated from bids by plans to provide the defined standard benefit or actuarially equivalent basic benefits as well as the portion of enhanced Part D coverage attributable to basic benefits. Enrollees in plans with enhanced coverage must pay the full price of benefits that supplement basic coverage. The combination of monthly payments to plans and expected payments for individual reinsurance make up 74.5 percent of total average monthly benefit costs.

- a. Since Part D began in 2006, Medicare law directed CMS to weight the bids of stand-alone drug plans equally (with an aggregate weight representing enrollment in traditional Medicare) and weight bids from Medicare Advantage (MA) drug plans by their prior-year MA enrollment.
- b. CMS used its general demonstration authority to calculate these values using 20 percent enrollment weighting and 80 percent weighting as in the 2006 approach.
- c. CMS used its general demonstration authority to calculate these values using 60 percent enrollment weighting and 40 percent weighting as in the 2006 approach.
- d. Bids are fully weighted by prior-year enrollment as called for by law.

Source: MedPAC based on CMS releases of Part D national average monthly bid amounts and base beneficiary premiums for 2006 through 2011 as well as other data provided by CMS.

- The first involves pharmacies or a network of pharmacies over the prices the plan will pay the pharmacy for drug ingredient costs and dispensing fees.
- The second involves the terms under which manufacturers pay retrospective rebates.

Plan sponsors tend to use rebate revenues to offset plans' benefit spending (reducing plan premiums) rather than lowering the price of prescriptions at the pharmacy counter, so that drug prices measured in this section are not affected by the outcomes of the second negotiations.

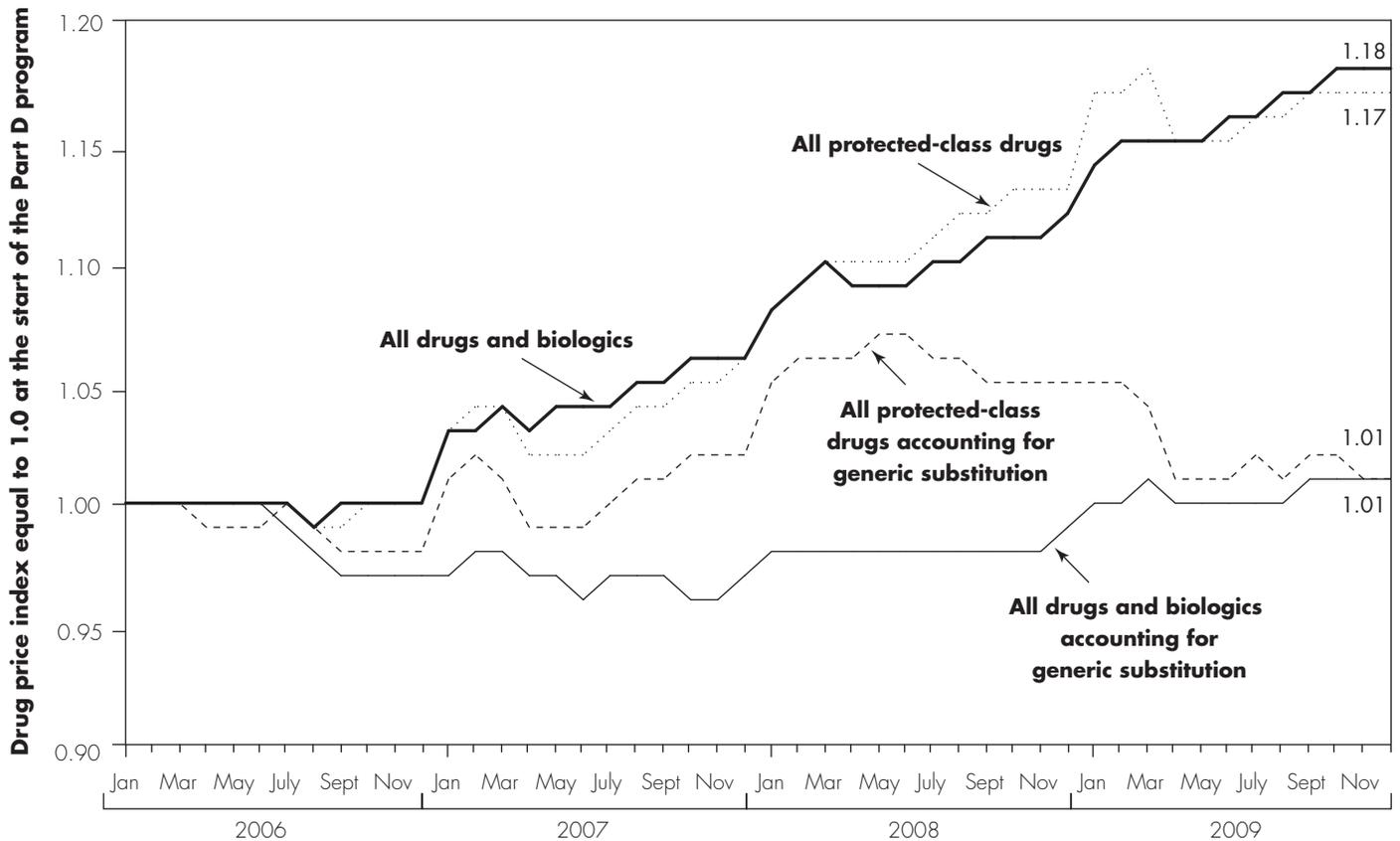
Part D plan sponsors have had mixed success at influencing drug prices. They have been quite successful at encouraging enrollees to use generic alternatives when available (Office of Inspector General 2007). Plan

sponsors regularly steer enrollees and negotiate rebates from manufacturers for brand-name drugs that have therapeutic alternatives. But sponsors have had less success negotiating rebates for unique drug and biologic products.

To track drug prices, the Commission contracted with researchers at Acumen, LLC, to construct a series of volume-weighted price indexes (Figure 13-6). The indexes do not reflect retrospective rebates from manufacturers but do reflect the prices sponsors and beneficiaries paid to pharmacies at the point of sale (including ingredient costs and dispensing fees). Measured by individual national drug codes (NDCs), Part D drug prices rose by an average of 18 percent cumulatively between January 2006 and December 2009.¹⁸ At the same time, Part D sponsors have had success encouraging enrollees to switch from brand-

**FIGURE
13-6**

**Availability of generics, rather than protected status,
key to slower price growth under Part D**



Note: Chain-weighted Fisher price indexes.

Source: Acumen, LLC, analysis for MedPAC.

name drugs to generic substitutes, particularly during the program's first two years. As measured by a price index that takes this substitution into account, Part D prices grew cumulatively by 1 percent between January 2006 and December 2009.¹⁹

For most drug classes, CMS requires plan formularies to cover at least two drugs in every therapeutic class and key drug type that are not therapeutically equivalent, unless there is only one drug approved for that class. This policy protects beneficiaries who need a drug that is the only one available to treat a certain condition and allows competition in classes with multiple products. For six drug classes, CMS requires Part D plans to cover "all or substantially all" drugs in the class. Those classes are antineoplastics, antidepressants, antipsychotics, antiretrovirals, anticonvulsants, and immunosuppressants

used by transplant patients. Although plans can still charge higher cost sharing for them, such as by placing them on tiers for nonpreferred brands, plans may have limited ability to steer utilization for these classes of drugs.

As measured by individual NDCs, prices for drugs in the six classes showed a trend similar to that for all Part D drugs, rising by a cumulative 17 percent over the four-year period (Figure 13-6). However, the observed 17 percent growth is influenced heavily by two classes of drugs: antidepressant medications, which account for about half of the volume in the six classes and had many generics on the market during this period; and anticonvulsants, which account for more than a quarter of the volume and also had generic alternatives available during the same period.

Our price index for the individual NDCs of antidepressant and anticonvulsant drugs fell by nearly 4 percent and 10

percent, respectively, during the four-year period (data not shown). Other classes are made up almost entirely of brand-name drugs, and for these products, prices grew rapidly, ranging from a little more than 20 percent for antiretrovirals to 46 percent for antineoplastics.

When protected-class drugs were grouped to take generic substitution into account, their prices grew by a cumulative 1 percent over the four-year period. Thus, despite the drugs' protected status, plan sponsors appeared to have had success at moving enrollees toward generics for these drugs, when generic substitutes are available. However, it is possible that the drugs' protected status may keep plan sponsors from negotiating rebates from manufacturers in classes in which one brand-name drug can be a therapeutic substitute for another brand-name drug. We lack rebate information to test this hypothesis.

Average Part D premiums

In 2011, the base beneficiary premium will be \$32.34, a slight increase from \$31.94 in 2010. Since premiums vary widely across plans, the actual average monthly premium will depend on beneficiaries' choice of plans. For the basic portion of the benefit (the portion that does not include premiums for enhanced, or supplemental, benefits), CMS estimates the actual average monthly premium at \$30 in 2011, a \$1 increase over the average in 2010.²⁰ The estimate reflects CMS's expectation that some Part D enrollees will switch to plans with lower premiums.

In the past, the Commission has calculated the expected average Part D premiums as well as the expected change in premiums for the coming year using the current year enrollment. These estimates would not match the actual average premiums paid since they assume that all enrollees remain in their current plans; however, the estimates provided some sense of the level of premiums beneficiaries will pay.

We did not calculate the expected average premiums for 2011, as they would be sensitive to the assumptions we make about beneficiary switching.²¹ As mentioned above, many plans will be discontinued or consolidated in 2011. The change is primarily the result of recent CMS regulations and guidance intended to reduce the number of plan offerings. In the past, a relatively small share (around 6 percent) of enrollees switched plans in any given year. The large reduction in the number of plan offerings will likely result in more beneficiaries switching plans and in greater uncertainty about beneficiaries' choice of plans for the coming year.

As a result of changes made in PPACA, higher income beneficiaries will be subject to a reduced premium subsidy beginning in 2011. Similar to the income-related premium for Part B, the reduced subsidy applies to individuals with an annual adjusted gross income (AGI) greater than \$85,000 and for couples with AGI greater than \$170,000. As of December 2010, CMS expects that roughly 1 million beneficiaries will pay the surcharge in 2011.

Plans' cost-sharing requirements

Cost-sharing requirements have generally been rising over the past few years (Medicare Payment Advisory Commission 2010b). In 2011, cost-sharing requirements for the top seven stand-alone PDPs based on enrollment in 2010 generally rose, but there are some notable reductions (Table 13-7). For example, WellCare Classic reduced its cost sharing for generic drugs from \$4 per 30-day prescription to \$0, and Humana Enhanced reduced the cost sharing for both preferred brand-name drugs and nonpreferred brand-name drugs by \$6 and \$2, respectively. But there are some significant increases as well. Beneficiaries enrolled in the CVS Caremark Value plan face cost sharing of \$40 per 30-day prescription for a brand-name drug on the preferred tier compared with \$22 in 2010.

For 2011, coinsurance for drugs on a specialty tier remains flat for most of the top seven plans, with the exception of AARP MedicareRx Preferred enrollees who were enrolled in the AARP MedicareRx Saver plan in 2010.²² For these enrollees, coinsurance for drugs on specialty tiers will increase to 33 percent from 25 percent in 2010. Another notable change is the addition of a specialty tier with 25 percent coinsurance by Community CCRx Basic in 2011. In 2010, the plan formulary had a three-tier structure with one tier for generic drugs and two tiers, preferred and nonpreferred, for brand-name drugs. In 2010, the cost-sharing amounts for the brand-name drugs were 25 percent and 58 percent for preferred and nonpreferred brand-name drugs, respectively.

From an enrollee's perspective, cost-sharing requirements for specialty-tier drugs can be high until the enrollee reaches Part D's catastrophic spending limit. In addition, under CMS's regulations, enrollees may not appeal specialty-tier cost sharing as they can for other drugs, such as those on tiers for nonpreferred brands. Because drugs on specialty tiers are often used to treat serious chronic illnesses such as rheumatoid arthritis and multiple sclerosis, patients who need these drugs can

**TABLE
13-7**

Cost-sharing amounts for stand-alone PDPs with highest 2010 enrollment

Stand-alone PDPs with the highest 2010 enrollment	Enrollment, 2010 (in millions)	Tier							
		Generic		Preferred brand		Nonpreferred brand		Specialty	
		2010	2011	2010	2011	2010	2011	2010	2011
AARP MedicareRx Preferred	2.8	\$7	\$7	\$42	\$45	\$74.75	\$79	33%	33%
AARP MedicareRx Saver*	1.5	6	7	\$25	\$45	\$81.38	\$79	25	33
Humana PDP Enhanced	1.3	7	7	\$45	\$39	\$75	\$73	33	33
Community CCRx Basic	1.2	0	2	25%	31%	58%	60%	N/A	25
First Health Part D Premier	0.6	7	8	11%	17%	43%	36%	29	29
CVS Caremark Value	0.6	8	5	\$21.75	\$39.75	\$95	\$95	25	25
WellCare Classic	0.5	4	0	\$35	\$42	\$73	\$92	25	25

Note: PDP (prescription drug plan), N/A (not available). Enrollment figures are based on September 2010 enrollment. In cases in which plans vary cost-sharing amounts across regions, we report unweighted median cost-sharing amounts.
 *Plan not offered in 2011 (merged with AARP MedicareRx Preferred according to CMS’s crosswalk file for 2011). Not all AARP MedicareRx Saver plan enrollees are automatically moved to the AARP MedicareRx Preferred plans.

Source: NORC/Georgetown University/Social & Scientific Systems analysis for MedPAC of formularies submitted to CMS.

face relatively high cost sharing for medications on top of significant OOP costs for their medical care. From a sponsor’s perspective, high-cost drugs may be used more widely than the evidence of their effectiveness supports, and higher coinsurance may temper their use. Moreover, if most of a sponsor’s competitors use specialty tiers, it may be important to use a specialty tier to limit the risk of attracting sicker enrollees who are taking very expensive drugs.

- member experience with drug plans (three measures); and
- drug pricing information and patient safety (five measures).

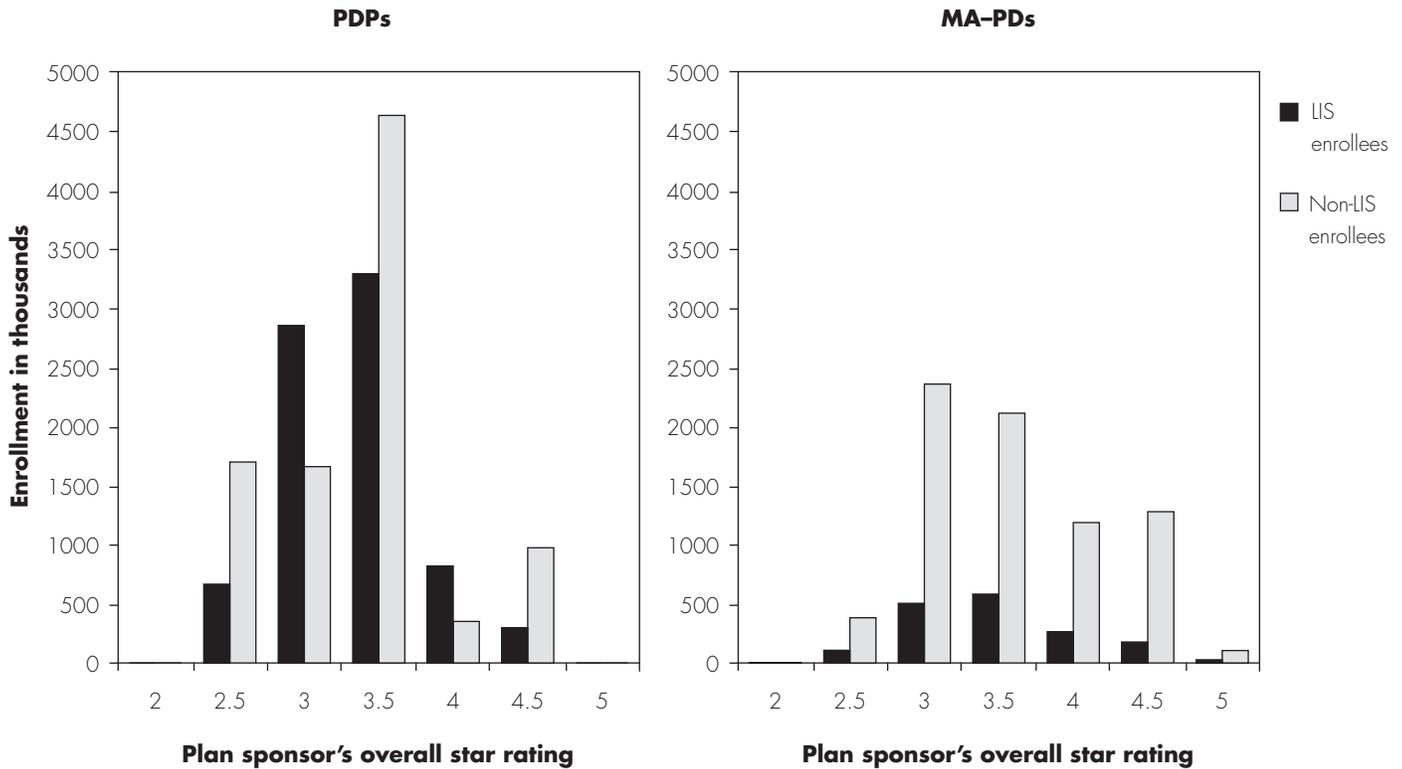
Two of the measures in the last domain relate to patient safety.²³ The first captures elderly members’ use of drugs that have a high risk of side effects when there may be safer drug choices. The second is a measure of optimal treatment for diabetes patients. Other patient safety measures are under review by organizations that focus on quality measurement, such as the Pharmacy Quality Alliance, and CMS may adopt these measures once they have been validated and endorsed. None of CMS’s currently available measures captures whether enrollees received their prescribed drug or an alternative therapy without undue delay.

CMS aggregates individual scores for each of the 19 measures on the Plan Finder into a 5-star system based on adjusted percentile rankings of sponsors; 5 stars means excellent performance and 1 star reflects poor performance. CMS presents star ratings that combine individual scores in each domain as well as a summary ranking that represents overall performance. The distribution of stand-alone PDP sponsor ratings ranges from 2.5 stars to 4.5 stars, while MA–PD sponsors range

Measuring plan performance in Part D

CMS collects quality and performance data for Part D plans to monitor sponsors’ operations and help beneficiaries choose among plans. CMS relies on several sources for these data—the Consumer Assessment of Health Providers and Systems survey, agency monitoring of plans, and data furnished by sponsors. CMS is also beginning to use claims information as another source for building quality measures. In 2010, 19 metrics were grouped into four domains:

- drug plan customer service (seven measures);
- member complaints, members who chose to leave, and audit findings (four measures);

**FIGURE
13-7****LIS and non-LIS enrollment by plan sponsors' star ratings, 2009**

Note: LIS (low-income subsidy), PDP (prescription drug plan), MA-PD (Medicare Advantage-Prescription Drug [plan]). Star ratings shown reflect a composite of 19 performance measures, where one star means “poor” and five stars means “excellent” performance. Sponsor scores are available for the 2010 version of the Medicare Prescription Drug Plan Finder tool available at www.medicare.gov.

Source: MedPAC analysis of CMS Part D performance and enrollment data.

from 2.0 stars to 5.0 stars. Generally, LIS enrollees do not tend to be in plans run by sponsors with star ratings that differ systematically from plans that enroll more non-LIS beneficiaries (Figure 13-7).

In 2008, the Commission convened an expert panel on Part D performance ratings that highlighted the importance of developing performance metrics that measure cost, access, quality, and customer service. The measures now include some quality measures, but additional measures of patient safety and appropriate medication use could provide better information on quality.

Policy issues

Evidence on Part D to date indicates that beneficiaries enrolled in Part D are generally satisfied with the Part D

program and continue to have good access to prescription drugs. However, several factors related to Part D spending deserve closer attention:

- Voluntary plan switching**—Year-to-year changes in enrollment are part of the design of Part D: Plans that are able to manage drug spending and bid more competitively are supposed to be rewarded with higher enrollment than plans that do not. To date, only about 6 percent of Part D enrollees have switched plans voluntarily each year. While general satisfaction with their plans may contribute to a low rate of switching among beneficiaries, there may also be obstacles that prevent some beneficiaries from switching to another plan. If beneficiaries are unwilling to switch, plans have less incentive to keep premiums low. Although CMS provides tools like the web-based Plan Finder to help beneficiaries compare plan options, choosing among options that differ on multiple dimensions can

be difficult and time-consuming. Providing measures of how well plans' transition policies work for new enrollees may allow more beneficiaries to switch to another plan while avoiding transition issues.

- **Performance measures**—CMS makes available selected performance measures and overall plan ratings based on those measures on www.medicare.gov to help beneficiaries evaluate their plan options during annual open enrollment season. Although there are two metrics related to patient safety, most metrics relate to the quality of customer service. It is not clear how helpful the overall ratings have been to beneficiaries evaluating their options. Including additional measures of clinical quality may provide information that will help beneficiaries evaluate plan options in a more meaningful way and may encourage more enrollees to switch plans.
- **Spending for high-cost drugs**—The Commission has been monitoring the growth in spending for high-cost drugs and biologics that have few, or no, therapeutic substitutes. Enrollees who use these products enter the catastrophic phase of the benefit very quickly. The rapid growth in prices paid for these products has led to fast growth in program spending for Part D's individual reinsurance. Although plan sponsors have an incentive to control drug spending, the degree to which they can control spending is weaker for single-source drugs and biologics. Since LIS beneficiaries use a disproportionate share of the high-cost drugs and biologics, most of the cost sharing is picked up by Part D's LIS, which has become the single largest component of Part D program spending. Because of the difficulty plan sponsors face in negotiating discounts and rebates for high-cost drugs and biologics, the current structure of the program may not be well-suited to these types of products. ■

Endnotes

- 1 In 2020, the OOP threshold reverts to the level it would have reached had annual increases been calculated at the average change in per capita drug spending.
- 2 According to a CMS announcement, all manufacturers of brand-name drugs, except for some that repackage or relabel drugs, signed the agreement to provide the 50 percent discount.
- 3 The amount of total covered drug spending at which a beneficiary meets the annual OOP threshold depends on the mix of brand-name and generic drugs that the individual fills during the coverage gap. The 2011 amount of total drug expenses at the annual OOP threshold of \$6,447.50 is for an individual with no other sources of supplemental coverage filling only brand-name drugs during the coverage gap.
- 4 For prescriptions filled during the coverage gap, the coinsurance percentage under the defined standard benefit applies only to the negotiated price of the drug, excluding dispensing fees, which differs from how the coinsurance applies during the initial benefit phase, when the coinsurance percentage applies to the gross cost of the drug, including dispensing fees.
- 5 If an employer agrees to provide primary drug coverage to its retirees with an average benefit value that is equal to or greater than Part D (called creditable coverage), Medicare provides the employer with a tax-free subsidy for 28 percent of each eligible individual's drug costs that fall within a specified range of spending. Under PPACA, employers still receive the retiree drug subsidy on a tax-free basis, but, beginning in 2013, they will no longer be able to deduct prescription drug expenses for which they receive the subsidy as a cost of doing business.
- 6 Medicare allows insurers to offer two types of plans that have the same average benefit value as the defined standard benefit. The first type, which CMS calls actuarially equivalent, uses the same deductible as the defined standard benefit but has different cost sharing during the plan's initial coverage phase. The second type, called basic alternative, allows insurers to use a lower deductible than the defined standard benefit, different cost sharing, and a modified initial coverage limit. Because they have the same average benefit value as the defined standard benefit, in this chapter we refer to both types as actuarially equivalent benefits.
- 7 Sponsors can enhance benefits in other ways as well—for example, covering drugs not allowed under basic Part D benefits, such as weight-loss medications and over-the-counter products. In the first few years of the Part D program, a handful of PDP sponsors offered products that covered some brand-name and generic drugs in the coverage gap. However, those plans attracted beneficiaries with relatively high spending on drugs and the plans experienced financial losses. In the following years, nearly all affected sponsors withdrew those products from the market.
- 8 Under the Part C payment system, which is used to pay Medicare Advantage plans, 75 percent of the difference between the plan's benchmark payment and its bid for providing Part A and Part B services is referred to as Part C rebate dollars. The rebate dollars can be used to supplement benefits or lower premiums for services provided under Part C or Part D.
- 9 CMS is allowing sponsors to offer only one basic plan and up to two enhanced plans in any given region, with a requirement that the plans have "meaningful differences"—defined as a difference of \$22 or more in a beneficiary's expected monthly OOP cost for a common market basket of drugs between basic and enhanced plans. In addition, CMS discourages plans with fewer than 1,000 enrollees.
- 10 There has been a concern that, in areas where MA-PDs hold large shares of enrollment, the ability of MA-PDs to reduce their drug premiums with "rebate dollars" from the Medicare Advantage payment system would lead to lower regional thresholds and fewer PDPs with premiums below those thresholds. By excluding "rebate dollars" from calculation of the regional thresholds, the new calculation method would result in higher thresholds, particularly in areas with large shares of enrollment in MA-PDs.
- 11 Prior authorization refers to requirements for preapproval from a plan before coverage. Quantity limits refer to a plan limiting the number of doses of a particular drug covered in a given time period. Under step therapy, plans require the enrollee to try specified drugs before moving to other drugs.
- 12 Most LIS enrollees pay no premiums, but those with incomes between 135 percent and 150 percent of the federal poverty level pay a portion of their plan's premium.
- 13 This estimate is from the Commission's analysis of CMS enrollment and crosswalk files.
- 14 Direct subsidy payments for LIS enrollees are risk-adjusted to reflect their higher average drug spending.
- 15 For 2010, the median coinsurance drugs listed on specialty tiers was 30 percent for PDP enrollees and 33 percent for MA-PD enrollees.

- 16 The growth in the reinsurance component of the bid between 2010 and 2011 reflects, in part, the expectation that the changes made to the Part D benefit under PPACA to reduce cost sharing in the coverage gap will result in higher reinsurance costs in 2011.
- 17 The growth in the reinsurance component of the bid between 2008 and 2009 (20 percent) reflects plans' expectations about the amount of spending that will fall into the catastrophic range of spending for a beneficiary with average health. The incurred spending for reinsurance grew by 9.5 percent between 2008 and 2009 (Table 13-3). The growth rates differ because the incurred spending reflects aggregate payments made to plans after adjusting for the health status of enrollees in each plan and are based on actual utilization (rather than plans' expectations).
- 18 By individual NDC, we mean prices across the exact same code that identifies the drug's labeler, drug, dosage form, strength, and package size. Because each specific drug often is available in different dosages, strengths, and package sizes, the same drug typically has many NDCs.
- 19 For this index, Acumen grouped NDCs that are pharmaceutically identical, aggregating prices across trade drug names, manufacturers, and package sizes. As a result, brand-name drugs are grouped with their generics if they exist, and the median price more closely reflects the degree to which market share has moved between the two.
- 20 CMS reported its estimate of the average monthly Part D premium for 2011 (\$30) in a public conference call.
- 21 In September 2010, Avalere Health estimated that the premiums for the top 10 stand-alone PDPs would increase 10 percent, on average, in 2011. They later released a revised estimate that the premium increase would be 0.2 percent for the top 10 stand-alone PDPs. A separate estimate by researchers at Georgetown University and NORC expects premiums for PDPs to be 10 percent higher if all enrollees remain in their current plan.
- 22 The AARP MedicareRx Saver plan merged with the AARP MedicareRx Preferred plan in 2011 and therefore is no longer offered in 2011.
- 23 Other Part D performance measures are available but are not on the Plan Finder. For example, each sponsor's generic dispensing rate is shown on the agency's website. Similarly, CMS posts other measures to its site that are still under development, are duplicative, or are limited by a small sample size. Among them, two are related to patient safety: a measure of drug–drug interactions and another of diabetes medication dosing. At CMS's Patient Safety Analysis website, which is available only to CMS and plan sponsors, sponsors can track their patient safety measures monthly and obtain more detailed information.

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A P P E N D I X

A

**Commissioners' voting
on recommendations**



Commissioners' voting on recommendations

In the Medicare, Medicaid and SCHIP Benefits Improvement and Protection Act of 2000, the Congress required MedPAC to call for individual Commissioner votes on each recommendation and to document the voting record in its report. The information below satisfies that mandate.

Chapter 1: Context for Medicare payment policy

No recommendations

Chapter 2: Assessing payment adequacy and updating payments in fee-for-service Medicare

No recommendations

Chapter 3: Hospital inpatient and outpatient services

The Congress should increase payment rates for the acute care hospital inpatient and outpatient prospective payment systems in 2012 by 1 percent. The Congress should also require the Secretary of Health and Human Services to make adjustments to inpatient payment rates in future years to fully recover all overpayments due to documentation and coding improvements.

Yes: Armstrong, Baicker, Behroozi, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Hansen, Kane, Kuhn, Miller, Naylor, Stuart, Uccello
Absent: Castellanos

Chapter 4: Physician and other health professional services

The Congress should update payments for physician fee schedule services in 2012 by 1 percent.

Yes: Armstrong, Baicker, Behroozi, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Hansen, Kane, Kuhn, Miller, Naylor, Stuart, Uccello
Absent: Castellanos

Chapter 5: Ambulatory surgical centers

The Congress should implement a 0.5 percent increase in payment rates for ambulatory surgical center services in calendar year 2012 concurrent with requiring ambulatory surgical centers to submit cost and quality data.

Yes: Armstrong, Baicker, Behroozi, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Hansen, Kane, Kuhn, Naylor, Stuart, Uccello
No: Miller
Absent: Castellanos

Chapter 6: Outpatient dialysis services

The Congress should update the outpatient dialysis payment rate by 1 percent for calendar year 2012.

Yes: Armstrong, Baicker, Behroozi, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Hansen, Kane, Kuhn, Miller, Naylor, Stuart, Uccello
Absent: Castellanos

Chapter 7: Skilled nursing facility services

The Congress should eliminate the update to payment rates for skilled nursing facility services for fiscal year 2012.

Yes: Armstrong, Baicker, Behroozi, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Hansen, Kane, Kuhn, Miller, Naylor, Stuart, Uccello
Absent: Castellanos

Chapter 8: Home health services

8-1 The Secretary, with the Office of Inspector General, should conduct medical review activities in counties that have aberrant home health utilization. The Secretary should implement the new authorities to suspend payment and the enrollment of new providers if they indicate significant fraud.

Yes: Armstrong, Baicker, Behroozi, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Hansen, Kane, Kuhn, Miller, Naylor, Stuart, Uccello
Absent: Castellanos

8-2 The Congress should direct the Secretary to begin a two-year rebasing of home health rates in 2013 and eliminate the market basket update for 2012.

Yes: Armstrong, Baicker, Behroozi, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Hansen, Kane, Kuhn, Miller, Naylor, Stuart, Uccello
Absent: Castellanos

8-3 The Secretary should revise the home health case-mix system to rely on patient characteristics to set payment for therapy and nontherapy services and should no longer use the number of therapy visits as a payment factor.

Yes: Armstrong, Baicker, Behroozi, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Hansen, Kane, Kuhn, Miller, Naylor, Stuart, Uccello

Absent: Castellanos

8-4 The Congress should direct the Secretary to establish a per episode copay for home health episodes that are not preceded by hospitalization or post-acute care use.

Yes: Armstrong, Baicker, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Hansen, Kane, Kuhn, Naylor, Uccello

No: Miller

Not voting: Behroozi, Stuart

Absent: Castellanos

Chapter 9: Inpatient rehabilitation facility services

The Congress should eliminate the update to the payment rates for inpatient rehabilitation facilities in fiscal year 2012.

Yes: Armstrong, Baicker, Behroozi, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Hansen, Kane, Kuhn, Miller, Naylor, Stuart, Uccello

Absent: Castellanos

Chapter 10: Long-term care hospital services

The Secretary should eliminate the update to the payment rate for long-term care hospitals for rate year 2012.

Yes: Armstrong, Baicker, Behroozi, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Kane, Kuhn, Miller, Naylor, Stuart, Uccello

Absent: Castellanos, Hansen

Chapter 11: Hospice

The Congress should update the payment rates for hospice for fiscal year 2012 by 1 percent.

Yes: Armstrong, Baicker, Berenson, Borman, Butler, Chernew, Dean, Hackbarth, Kane, Kuhn, Miller, Naylor, Stuart, Uccello

Not voting: Behroozi

Absent: Castellanos, Hansen

Chapter 12: The Medicare Advantage program: Status report

No recommendations

Chapter 13: Status report on Part D

No recommendations

Acronyms

Acronyms

AAA	abdominal aortic aneurysm	CBO	Congressional Budget Office
AARP	(formerly) American Association of Retired Persons	CBSA	core-based statistical area
ACE	angiotensin-converting enzyme	CC	complication or comorbidity
ACEI	angiotensin-converting enzyme inhibitor	CCP	coordinated care plan
ACGME	Accreditation Council for Graduate Medical Education	CCPD	continuous cycler-assisted peritoneal dialysis
ACE-PRO	Access to Care for the Elderly Project	CDC	Centers for Disease Control and Prevention
ACH	acute care hospital	CEA	carotid endarterectomy
ACO	accountable care organization	CEO	chief executive officer
ACOVE	Assessing Care of Vulnerable Elders	CHC	continuous home care
ACP	American College of Physicians	CHF	congestive heart failure
ACSC	ambulatory care sensitive condition	CHIP	Children’s Health Insurance Program
AGI	adjusted gross income	CMI	case-mix index
AHA	American Hospital Association	CMS	Centers for Medicare & Medicaid Services
AHF	American Hospice Foundation	CMS-HCC	CMS-hierarchical condition category
AHIP	America’s Health Insurance Plans	COLA	cost-of-living adjustment
AHRQ	Agency for Healthcare Research and Quality	COP	condition of participation
AIDS	acquired immunodeficiency syndrome	COPD	chronic obstructive pulmonary disease
AIM	Assessment Intervention and Measurement [project]	CPI-U	consumer price index for all urban consumers
ALOS	average length of stay	CPT	Current Procedural Terminology
AMA	American Medical Association	CT	computed tomography
AMI	acute myocardial infarction	CY	calendar year
APC	ambulatory payment classification	DCI	documentation and coding improvements
ARB	angiotensin receptor blocker	DMARD	disease-modifying antirheumatic drug
ARRA	American Recovery and Reinvestment Act of 2009	DRA	Deficit Reduction Act of 2005
ASC	ambulatory surgical center	DRG	diagnosis related group
AST	American Society of Transplantation	DVT	deep vein thrombosis
AV	arteriovenous	E&M	evaluation and management
BBA	Balanced Budget Act of 1997	ED	emergency department
BEA	Bureau of Economic Analysis	EGHP	employer group health plan
BETOS	Berenson-Eggers Type of Service	EHR	electronic health record
BLS	Bureau of Labor Statistics	EKG	electrocardiogram
BMI	body mass index	EPS	earnings per share
BNA	Bureau of National Affairs	ER	emergency room
CAD	coronary artery disease	EROM	End Results Outcome Measures
CAH	critical access hospital	eRx	electronic prescribing
CAHPS®	Consumer Assessment of Healthcare Providers and Systems	ESA	erythropoiesis-stimulating agent
CAPD	continuous ambulatory peritoneal dialysis	ESI	employer-sponsored insurance
CARE	Continuity Assessment Record and Evaluation [tool]	ESRD	end-stage renal disease
		FDA	Food and Drug Administration
		FEHB	Federal Employees Health Benefits [Program]
		FEHC	Family Evaluation of Hospice Care
		FFS	fee-for-service

FIM™	Functional Independence Measure™	KCMU	Kaiser Commission on Medicaid and the Uninsured
FY	fiscal year	KFF	Kaiser Family Foundation
g/dL	grams per deciliter	LDL-C	low-density lipoprotein cholesterol
GAO	Government Accountability Office	LIS	low-income [drug] subsidy
GDP	gross domestic product	LPN	licensed practical nurse
GEM	Generating Medicare Physician Quality Measurement Results [program]	LTCH	long-term care hospital
GI	gastrointestinal	LVEF	left ventricular ejection fraction
GME	graduate medical education	m²	square meter
HbA1c	hemoglobin A1c	M&A	merger and acquisition
H-CAHPS®	Hospital Consumer Assessment of Healthcare Providers and Systems	MA	Medicare Advantage
HCFA	Health Care Financing Administration	MACIEs	Medicare Ambulatory Care Indicators for the Elderly
HCFA-10	Health Care Financing Administration-10	MA-PD	Medicare Advantage-Prescription Drug [plan]
HCPCS	Healthcare Common Procedure Coding System	MCC	major complication or comorbidity
HCUP	Healthcare Cost and Utilization Project	MDS	Minimum Data Set
HDHP	high-deductible health plan	MedPAC	Medicare Payment Advisory Commission
HEDIS®	Healthcare Effectiveness Data and Information Set	MedPAR	Medicare Provider Analysis and Review [file]
HF	heart failure	MEI	Medicare Economic Index
HHA	home health agency	MGMA	Medical Group Management Association
HHS	Department of Health and Human Services	MI	myocardial infarction
HI	Hospital Insurance (Medicare Part A)	min	minute
HIE	Health Insurance Experiment	MIPPA	Medicare Improvements for Patients and Providers Act of 2008
HIT	health information technology	mL	milliliters
HIV	human immunodeficiency virus	MMA	Medicare Prescription Drug, Improvement, and Modernization Act of 2003
HMO	health maintenance organization	MMSEA	Medicare, Medicaid, and SCHIP Extension Act of 2007
HOPD	hospital outpatient department	MPFS	Medicare physician fee schedule
HOS	Health Outcomes Survey	MRI	magnetic resonance imaging
HPSA	health professional shortage area	MSA	medical savings account
HRSA	Health Resources and Services Administration	MSA	metropolitan statistical area
HSC	Center for Studying Health System Change	MS-DRG	Medicare severity–diagnosis related group
HUD	Department of Housing and Urban Development	MS-LTC-DRG	Medicare severity long-term care diagnosis related group
HWH	hospital within hospital	MTMP	medication therapy management program
ICU	intensive care unit	N/A	not applicable
IME	indirect medical education	N/A	not available
IOL	intraocular lens	NAHC	National Association for Homecare and Hospice
IOM	Institute of Medicine	NALTH	National Association of Long Term Care Hospitals
IPPS	inpatient prospective payment system	NCHS	National Center for Health Statistics
IPS	interim payment system	NAMCS	National Ambulatory Medical Care Survey
IQI	inpatient quality indicator	NCQA	National Committee for Quality Assurance
IRF	inpatient rehabilitation facility	NDC	national drug code
IRF-PAI	Inpatient Rehabilitation Facility–Patient Assessment Instrument		
IV	intravenous		

NHPCO	National Hospice and Palliative Care Organization	PQRI	Physician Quality Reporting Initiative
NIDDK	National Institute of Diabetes and Digestive and Kidney Diseases	PQRS	Physician Quality Reporting System
NKF	National Kidney Foundation	PSI	patient safety indicator
NORC	(formerly) National Opinion Research Center	QAPI	quality assessment and performance improvement [program]
NQF	National Quality Forum	QIP	quality incentive program
NSAS	National Survey of Ambulatory Surgery	RAC	recovery audit contractor
NTA	nontherapy ancillary	RDS	retiree drug subsidy
OACT	Office of the Actuary	RHQDAPU	Reporting Hospital Quality Data for Annual Payment Update [program]
OASIS	Outcome and Assessment Information Set	RN	registered nurse
OBQM	Outcome-Based Quality Monitoring	RT	respiratory therapist
OECD	Organisation for Economic Co-operation and Development	RUG	resource utilization group
OIG	Office of Inspector General	RVG	radionuclide ventriculography
OOP	out-of-pocket	RVU	relative value unit
OPPS	outpatient prospective payment system	RY	rate year
OR	operating room	SCH	sole community hospital
P4P	pay for performance	SCHIP	State Children's Health Insurance Program
PAC	post-acute care	SGR	sustainable growth rate
PBM	pharmacy benefit manager	SMI	Supplementary Medical Insurance (covering Medicare Part B and Part D)
PDE	prescription drug event	SNF	skilled nursing facility
PDP	prescription drug plan	SNP	special needs plan
PE	practice expense	SSA	Social Security Administration
PE	pulmonary embolism	SSO	short-stay outlier
PEACE	prepare, embrace, attend, communicate, and empower.	TEFRA	Tax Equity and Fiscal Responsibility Act of 1982
PET	positron emission tomography	TIA	transient ischemic attack
PFFS	private fee-for-service	TMA	TMA, Abstinence Education, and QI Programs Extension Act of 2007
PHC4	Pennsylvania Health Care Cost Containment Council	TRHCA	Tax Relief and Health Care Act of 2006
PMPM	per member per month	TTY/TDD	telephone typewriter/telecommunications device for the deaf
POA	present on admission	U.K.	United Kingdom
POS	Provider of Service	URR	urea reduction ratio
PPACA	Patient Protection and Affordable Care Act of 2010	U.S.	United States
PPI	producer price index	USRDS	United States Renal Data System
PPO	preferred provider organization	UTI	urinary tract infection
PPS	prospective payment system	VA	Department of Veterans Affairs
PQI	prevention quality indicator	VBP	value-based purchasing
		VPS	volume performance standard

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Scott Armstrong, F.A.C.H.E., is the president and chief executive officer of Group Health Cooperative, a consumer-governed health system serving 650,000 enrollees through coordinated care plans for groups and individuals and for Medicare, Medicaid, and SCHIP beneficiaries. He has worked at Group Health since 1986, serving in positions ranging from assistant hospital administrator to chief operating officer; he became president and CEO in 2005. Before joining Group Health, Mr. Armstrong was the assistant vice president for hospital operations at Miami Valley Hospital in Dayton, Ohio. Mr. Armstrong is chair of the board of the Alliance of Community Health Plans and board member of America's Health Insurance Plans and the Seattle Chamber of Commerce. He is also immediate past-chair of the Board of the Pacific Science Center and a fellow of the American College of Healthcare Executives. He received his bachelor's degree from Hamilton College in New York and a master's degree in business with a concentration in hospital administration from the University of Wisconsin–Madison.

Katherine Baicker, Ph.D., is Professor of Health Economics in the Department of Health Policy and Management at the Harvard School of Public Health, where her research focuses on health insurance finance and the effect of reforms on the distribution and quality of care. Dr. Baicker has served on the faculty of the Department of Public Policy in the School of Public Affairs at the University of California, Los Angeles, the Economics Department at Dartmouth College, and the Center for the Evaluative Clinical Sciences and the Department of Community and Family Medicine at Dartmouth Medical School. From 2005 to 2007, Professor Baicker served as a Senate-confirmed member of the President's Council of Economic Advisers. She is a research associate at the National Bureau of Economic Research and is on the Congressional Budget Office's Panel of Health Advisers. She also served as a commissioner of the Robert Wood Johnson Foundation's Commission to Build a Healthier America and was a member of the Institute of Medicine's Committee on Health Insurance Status and its Consequences. She received her B.A. in economics from Yale University and her Ph.D. in economics from Harvard University.

Mitra Behroozi, J.D., is the executive director of the 1199SEIU Benefit and Pension Funds. Ms. Behroozi oversees eight major health and pension funds for health care workers. Collectively, these self-administered and self-insured health funds are among the largest in the nation. Under her leadership, the Funds have implemented a series of plan design and innovative cost containment programs, which are protecting benefits for members and retirees. Previously, Ms. Behroozi was a partner with Levy, Ratner & Behroozi, PC, representing New York City unions in collective bargaining negotiations and proceedings. While at the law firm, she also served as union counsel to Taft-Hartley benefit and pension funds. She serves on the board of the Brooklyn Health Information Exchange (BHIX), the steering committee of the Campaign for Better Care, and the New York State Health Care Reform Advisory Committee. Ms. Behroozi has a law degree from New York University and an undergraduate degree in sociology from Brown University.

Robert A. Berenson, M.D., F.A.C.P., is an Institute Fellow at the Urban Institute. From 1998 to 2000 he served as Director of the Center for Health Plans and Providers in the Centers for Medicare & Medicaid Services overseeing provider payment policy and managed care contracting. Dr. Berenson was founder and medical director of the National Capital Preferred Provider Organization from 1986 to 1996. He served as an Assistant Director of the White House Domestic Policy staff in the Carter Administration. Dr. Berenson has authored many articles in nationally recognized journals and several books, and he most recently co-authored *Medicare Payment Policy and the Shaping of U.S. Health Care*. Dr. Berenson is a board-certified internist who practiced for twenty years. He received his B.A. from Brandeis University and his M.D. from the Mount Sinai School of Medicine.

Karen R. Borman, M.D., F.A.C.S., is the Senior Associate Program Director of the General Surgery Residency Program and an attending physician at Abington Memorial Hospital, Abington, Pennsylvania. She holds clinical faculty appointments at Temple University and Drexel University Schools of Medicine. She is board certified in surgery and in surgical critical care. Her clinical focus is on endocrine surgery and her research focus is on surgical education. She is a member of General Surgery CPT/RUC Committee of the American College of Surgeons. She is a director and an executive committee

member of the American Board of Surgery. She is the immediate past-president of the Association of Program Directors in Surgery. She has worked with the Centers for Medicare & Medicaid Services on issues related to physician payment and service coverage. Dr. Borman was a member of the executive committee and vice-chair of the American Medical Association's Current Procedural Terminology Editorial Panel. She also served on the AMA Diagnostic and Therapeutic Technology Assessment Panel. Dr. Borman earned her medical degree from Tulane University. Her undergraduate degree in chemistry is from the Georgia Institute of Technology.

Peter W. Butler, M.H.S.A., is a nationally recognized health care executive with more than 30 years of experience in academic medical centers and health care systems. In addition to being president and chief operating officer of Rush University Medical Center in Chicago, Illinois, Mr. Butler is an associate professor and chairman of the Department of Health Systems Management at Rush University. Before joining Rush, he served in senior positions at The Methodist Hospital System in Houston and the Henry Ford Health System in Detroit. He currently serves as chairman of the Board of University HealthSystem Consortium. Mr. Butler holds an undergraduate degree in psychology from Amherst College and a master's degree in health services administration from the University of Michigan.

Ronald D. Castellanos, M.D., has practiced urology for more than 30 years. For the past four years Dr. Castellanos has been a member, and for the last year the chair, of the Practicing Physicians Advisory Council on issues related to physician payment. Dr. Castellanos was president of the Florida Urologic Society and has worked with several other organizations on health policy, including the American Urologic Association and the American Lithotripsy Society. Dr. Castellanos earned his medical degree from Hahnemann Medical College. His undergraduate degree is from Pennsylvania State University.

Michael Chernew, Ph.D., is a professor in the Department of Health Care Policy at Harvard Medical School. Dr. Chernew's research activities focus on several areas, most notably the causes and consequences of growth in health care expenditures, geographic variation in medical spending and use, and value-based insurance design (VBID). He is also a member of the Congressional Budget Office's Panel of Health Advisors and Commonwealth Foundation's Commission on a High Performance

Health System. In 2000 and 2004, he served on technical advisory panels for the Centers for Medicare & Medicaid Services (CMS) that reviewed the assumptions used by the Medicare actuaries to assess the financial status of the Medicare trust funds. Dr. Chernew is a Faculty Research Fellow of the National Bureau of Economic Research. He co-edits the *American Journal of Managed Care* and is a Senior Associate Editor of *Health Services Research*. In 2010, Dr. Chernew was elected to the Institute of Medicine (IOM) of the National Academy of Sciences. Dr. Chernew earned his undergraduate degree from the University of Pennsylvania and a doctorate in economics from Stanford University.

Thomas M. Dean, M.D., is a board-certified family physician who has practiced in Wessington Springs, South Dakota, since 1978. He is chief of staff at Avera Wesskota Memorial Medical Center. Dr. Dean is on the board of directors of Avera Health Plan, and is President-elect of the South Dakota Academy of Family Physicians. He was president of the National Rural Health Association, and he published articles and presented on health care in rural areas. Dr. Dean received the Dr. Robert Hayes Memorial Award for outstanding rural health provider, received the Pioneer Award from the South Dakota Perinatal Association, and was awarded a Bush Foundation Medical Fellowship to study leadership and health policy. Dr. Dean earned his medical degree from the University of Rochester School of Medicine and Dentistry. His undergraduate degree is from Carleton College.

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Jennie Chin Hansen, R.N., M.S.N., F.A.A.N., is currently CEO of the American Geriatrics Society, and previously she was president of AARP and a senior fellow at University of California's Center for the Health Professions. Ms. Hansen was executive director of On Lok Senior Health Services, the prototype for the Program of All Inclusive Care for the Elderly (PACE), a capitated program for frail elders that integrates Medicare and Medicaid finances and care delivery and was signed into federal legislation as a provider type in the Balanced Budget Act of 1997. PACE now operates in over 30 states. She has practiced and taught nursing in both urban and rural settings. She currently serves as a board member of the National Academy of Social Insurance and the SCAN Foundation. Ms. Hansen consults with other foundations and programs on leadership development and independent reviews. She is a Fellow in the American Academy of Nursing. Ms. Hansen received her B.S. from Boston College and her M.S.N. from the University of California, San Francisco.

Nancy M. Kane, D.B.A., is professor of management in the Department of Health Policy and Management and associate dean of education at the Harvard School of Public Health. Dr. Kane directs the Masters in Healthcare Management Program, an executive leadership program for mid-career physicians leading health care organizations. She has taught health care accounting, payment systems, financial analysis, and competitive strategy. Her research interests include measuring hospital financial performance, quantifying community benefits and the value of tax exemption, the competitive structure and performance of hospital and insurance industries, and nonprofit hospital governance. Professor Kane consults with federal and state agencies involved in health system design, oversight, and payment. She is an outside director of Press Ganey, which provides patient satisfaction surveys and comparative performance reports to health care providers. Prior to obtaining her business training, she practiced as a hospital-based physical therapist. Dr. Kane earned her master's and doctoral degrees in business administration from Harvard Business School.

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George N. Miller, Jr., M.H.S.A., has, over the last two decades, managed a series of hospitals, leading financial turnarounds at four of them. Since 2008, Mr. Miller has been the President and Chief Financial Officer of First Diversity Healthcare Group, a national healthcare consulting firm helping healthcare organizations improve their operations. He was the Regional President and CEO of Community Mercy Health Partners and senior vice president of Catholic Health Partners, a hospital chain in the Springfield, Ohio, area. Previously, he ran hospitals in Illinois, Texas, and Virginia and is the immediate past president of the National Rural Health Association. Mr. Miller has been an adjunct professor in health services administration at Central Michigan University since 1998. He has an undergraduate degree in business administration from Bowling Green State University and a master of science in health services administration from Central Michigan University.

Mary Naylor, Ph.D., R.N., F.A.A.N., is the Marian S. Ware Professor in Gerontology and Director of the NewCourtland Center for Transitions and Health at the University of Pennsylvania School of Nursing. Since 1989, Dr. Naylor has led an interdisciplinary program of research designed to improve the quality of care, decrease unnecessary hospitalizations, and reduce health care costs for vulnerable community-based elders. Dr. Naylor is also the National Program Director for the Robert Wood Johnson Foundation program, Interdisciplinary Nursing Quality Research Initiative, aimed at generating, disseminating, and translating research to understand how nurses contribute to quality patient care. She was elected to the National Academy of Sciences, Institute of Medicine in 2005. She also is a member of the RAND Health Board and the National Quality Forum Board of Directors and chairs the Board of the Long Term Quality Alliance. Dr. Naylor received her MSN and PhD from the University of Pennsylvania and her B.S. in Nursing from Villanova University.

Bruce Stuart, Ph.D., is a professor and executive director of the Peter Lamy Center on Drug Therapy and Aging at the University of Maryland in Baltimore. An experienced research investigator, Mr. Stuart has directed grants

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Cori E. Uccello, F.S.A., M.A.A.A., M.P.P., is Senior Health Fellow of the American Academy of Actuaries, serving as the actuarial profession's chief public policy liaison on health issues. Before joining the Academy in 2001, Ms. Uccello was a senior research associate at the Urban Institute where she focused on health insurance and retirement policy issues. She previously held the position of actuarial fellow at the John Hancock Life Insurance Company. Ms. Uccello has written extensively on the health insurance market and the Medicare program, including pieces on Medicare's financial condition and the Medicare prescription drug program. She serves as a member of the Technical Review Panel on the Medicare Trustees' Report. Ms. Uccello is a fellow of the Society of Actuaries and a member of the American Academy of Actuaries. She received her B.S. from Boston College and her M.P.P. from Georgetown University.

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